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THE
PENN MONTHLY.

JANUARY, 1876.

THE MONTH.

THE purchase by England of the interest of the Khedive of Egypt in the Suez Canal affords food for reflection. The aqueduct which, starting from the huge stone defences against the shifting sands of the Mediterranean, fights through seventy-two miles of rock, sand and lagoon into the Gulf of Suez, is probably the grandest engineering feat of modern times. After years of consideration, labor, and expense, the natural disadvantages of the isthmus have been overcome, and the overland traffic to the East is carried on in ocean merchantmen. That proud sense of exclusive sovereignty was not expected from Egypt which would have made stronger powers refuse the occupation of their territory for such an international operation; but every one must be surprised to see the Khedive willing and anxious to sell out what interest he has in it to a foreigner. The explanation most charitable to his wits is that he must be sorely at a loss for available assets.

That the greatest trader in the world can purchase a controlling interest in a canal upon which all the Eastern overland traffic depends without in the least disturbing the composure of Europe is a gratifying proof of the commercial and pacific temper of our times. Not long ago such a thing would have sent the firebrand theory of the balance of power flashing through the councils of the Continent, and discreet cabinet combinations would have been made to sap the health and strength of a neighbor who might, and the theory was would, at the first profitable opportunity show her claws. But it is now

understood that it is not the only, nor the best strength, which consists in weakening others, and the only indignation felt is by the French at the Bank of France, to whom the Khedive first offered to sell, and who refused to buy. It does seem strange that so large a share of an undertaking which was planned by a Frenchman, and really accomplished by France, should have fallen into the hands of the country whose engineers and financiers reported against it from the first.

THE Sick Man of the West has for the past month been full of wars and rumors of wars with the United States, which the English journals have eagerly spread as subjects for the exercise of prophetic powers. Nobody in this country, knowing the conciliatory temper that Spain's embarrassments compel her to display in foreign relations, and the aversion that our government always has to war, could have thought a serious complication possible. But it is not surprising that Don Carlos, with postal and diplomatic facilities comparatively limited, should have given to the canard greater credence than it deserved. He wrote a letter to Alfonso, offering, without waiving his rights to the crown, to join forces with him in case of a war with the United States. Unfortunately for the construction of the document, it was published just as the journalistic clouds had begun to break, and has accordingly been received as a pretext for retirement from a field which Don Carlos cannot hold, or as a bid for popular favor. Yet probably the only thing, except the annihilation of one of the contending parties, that could unite Spain, would be resistance against a common enemy. The intelligence and imagination ought to be stretched to receive anything with the semblance of chivalry which comes out of the miserable contest for a crown that has more debts than sovereignty. Since the discovery of America, Spain has by ignorance or dissension been deliberately rooting up her commerce, manufactures, wealth and education. If she be still fated to make herself a bankrupt among nations, it had better be in quarrels picked with foreigners for fancied provocations than in this insane rage against herself.

THE past two weeks have been most prolific of news of all sorts, and newspaper men must have their hands full in gathering and commenting on item after item. As if we had not enough else to excite us, there comes the terrible news of the wreck of the steamer

“Deutschland,” carrying dismay and personal loss to many on both continents. There have been two inquests held in England over the recovered bodies, but neither has completed its labor nor given its verdict up to the time of our writing. No blame seems to be due the captain; for, though he was out of his reckoning to the amount of several minutes, the weather had been such since the vessel left port as to make it impossible to obtain an observation. If, as one report states, he was not furnished with a “patent log”—(whatever that may be)—but had to rely on old-fashioned instruments, the company that sent him are to be blamed for the accident; but the absence of a life-saving station on that part of the coast would seem to make the British government responsible for the great loss of life that ensued.

Following soon after the above, we have the loss of 128 lives on the steamer Mosel; just as she is about leaving port with all her passengers aboard, a package of dynamite bursts, scattering death all around. We do not envy the feelings of the remaining passengers who have the perilous voyage before them; nor of the crew, who, with the superstition of sailors, will doubtless feel they are sailing on a doomed ship. The French steamer “L’Amerique” has been towed into port in a disabled condition; the “Los Angeles,” a Pacific mail steamer, we are glad to say, is safe, the delay in her case being caused by broken machinery.

MICHAEL C. KERR, of Indiana, has been elected Speaker of the House, and all the significance which newspapers always attach to such events belongs to this case rightly, as far as can be seen. In other words, the election shows that hard money, revenue tariff, and all the traditional doctrines of the Democratic party, are the true creed after all, so far as that party itself is concerned; that soft money, protection to American industries, and *id omne genus*, belong, so far as they are as party questions, to the Republicans; that the Democratic party, like the Ultramontanes, must be true to their history or be nothing; that Allen, be he in the abstract wrong or right, is not a representative Democrat; and that Tilden, be he in the abstract wrong or right, is at least a true and consistent Democrat. Kerr, we hope and believe, will show himself honest, and has been always sufficiently independent. New York rejoices in his triumph, and Philadelphia has nothing to say against him. The House being

unable to do much more than merely go over its adversaries' record—following up certain *vestigia retrorsum* leading, it may be remarked, through much mire—has not a great deal of original power either for good or ill, so that its leadership is not what it would be were both House and Senate of the same complexion. Mr. Randall, our townsman, failed, we may say with sincere regret, in a contest which, so far as he was concerned, was honorably conducted, and when he was defeated he retained his self-possession sufficiently to enable him to gracefully propose that Mr. Kerr's nomination should be made unanimous. His politico-economical principles are certainly those of Philadelphia, and his private character and his reputation as a parliamentarian stand high. He has been accused of affinity with the railroads, and of being ready to assist the scheme of governmental subsidy for the Texas Pacific Railroad. His position, whether wise or the reverse, can certainly be honestly supported by any member of Congress; and what is more to the purpose, his own friends and acquaintances said some time ago that the railroad influence was not for him but against him, and would almost certainly cost him his election. Whether this is true, and whether Kerr is not the Simon Pure, the genuine subsidizer, will be shown before very long.

DEMOCRATIC victories, whisky suits, Indian Department revelations, all to the contrary notwithstanding, the third-term question, like Daniel Webster, still lives, and has for its sponsor the Methodist Episcopal Church. Bishop Gilbert Haven calls to the Methodist Episcopal heart to arouse, the Methodist Episcopal brain to devise, the Methodist Episcopal pocket to disgorge, that Grant may save the Southern negro from reconstructed oppression, and may survive to maintain the eclat of the worship of the great tabernacle at Washington. The comfortable consciousness of Establishment which took so many centuries to develop in England, has, American-like, sprung up here in eight short years; and no archbishop with an income counting by the tens of thousands in pounds, or Dean with a dozen pluralities, ever had to face a more unpleasant shock than that which our Episcopal (Methodist) father finds in the approaching dissolution of Grant. The pseudo-aristocracy was so entirely congenial to this particular species of religious organization, and the latter to it—the view of a Cabinet upon its knees enjoyed

even at occasional funeral or casual wedding, if once possessed and then lost, would be so bereaving to the bestower of highly official benediction, to him whose sermons were as proclamations, and whose prayers had been so to speak certified by Presidential approval, and countersigned by a Secretary of State—that life after such a loss could never be the same to Bishop Haven.

SINCE our last issue the prosecutions in the Whisky Ring have been continued with a success unprecedented in the exposure of government frauds. McDonald and Joyce have been convicted, and the counsel for the prosecution seem determined to obey the President's mandate—let no guilty man escape—to the letter. Especial interest was felt in McDonald's case, as his known intimate relations with the President, and the courtesy with which he was received at the White House long after his complicity in the whisky frauds was rumored, had given rise to many surmises, and it was thought that revelations damaging to those in high places would be made at his trial. Nothing, however, that was not known before was elicited during the trial; but after his conviction McDonald is reported to have declared "Grant is one of the best and purest men the country has produced," and "incapable of fraud." As he made substantially the same declaration regarding General Babcock, the President's secretary, we may be pardoned for doubting McDonald's ability to judge. The indictment of General Babcock by the Grand Jury on the 3d inst. has undoubtedly made a greater sensation than anything so far happening in this dirty business. The General's appeal for trial before a military tribunal was not received with favor by the community, inasmuch as a military tribunal can declare no more than that in their opinion the defendant is guilty and shall be tried before a court-martial. Moreover, the long delay in General Howard's case, when all the documentary evidence was ready and at hand in Washington, was sufficient precedent to make people believe that in this instance the trial could be prolonged *ad infinitum*. But General Hancock, one of the tribunal, has declared that the civil suit should take precedence of the military investigation, and Babcock comes before the court.

Another unfortunate complication in this affair is the removal of General Henderson by the Attorney-General, at the President's in-

stance, and the appointment of Mr. Broadhead in his place. It seems that Henderson, in summing up in the Avery suit, was reported to have gone out of his way to make some reflections prejudicial to the President, whereupon he was called to account, and having replied that he had said nothing more than he believed it his duty to say, he was removed.

There are two aspects to this case as regards General Henderson, but as far as Grant is concerned it is conceded by the latter's friends that he was too hasty in his actions, and that in his present critical position it would have become him better to have ignored the attack and not have done anything till the trials were over. There can be no doubt but that by the removal of Henderson one of the most able and persistent opponents of the ring thieves has been disposed of.

THE great municipal statesman of New York, with that peculiar genius for getting what does not belong to him, has got his liberty. Efficient steps were instantly taken to repair the accident; on the part of the police by a profuse distribution of Mr. Tweed's photograph, and upon the part of the State by Governor Tilden's immediate return to New York to investigate. The papers tell us the significant fact that he does not talk much. Probably he enters the lonely, cold, dark region, with a depressing sense of elbow-room and of the necessity of harpooning a fraud. The immediate relatives of Mr. Tweed are inconsolable. They say this last step has ruined them, and cling to the distressing but honorable explanation that their ancestor has been stolen.

But be the cause and the result of the mystery what it may, it is almost certain to have the unfortunate effect of bringing the humane system of prison discipline—if such a word can be used without injustice—as practiced in New York, into temporary disfavor. It must be admitted that the prison authorities were guilty of a mistake of judgment. The ordinary convict at hard labor might be trusted to drive around New York in a hack, or to spend an occasional evening at the theatre or at his family fireside, but unusual precautions ought to have been taken to petrify the sympathies of the gentlemen in waiting upon one of so winning and magnetic a manner as the departed.

IN order that a civil servant of the United States should be honored by a funeral national, even to the extent of a guard of honor or of a little crape on the nation's buildings, it is not enough that he should give up his heart, mind and strength in useful services to his country, but he must, like Lincoln, be shot down by an assassin during his Presidency; or, like Vice-President Wilson, he must die in the Capitol of the nation and almost in his chair of office. Republics are ungrateful; and they train their servants, not as in other countries to look forward to long, respected and rewarded careers, but rather to a precarious hold on popular favor, certain to end in entire neglect. To very few American politicians has been vouchsafed as long a public station as Henry Wilson enjoyed, and even he had lived to the full end of his honors. He was identified—like the other great men of his party, the full tale of whom has now been rendered to death—with a cause, and their own usefulness and vigor ended with its success. His titles to distinction were not so much those of brilliancy or of profoundness as the more attainable but rarer qualities of courage, sincerity and tireless industry; the fine temper of a man who has been beaten for the best part of his life, but not cast down. For these good things he had in the end an abundant reward, because he enjoyed to a politician the unspeakable satisfaction of living to see the despised and outvoted causes to which he had joined himself from the start, in full possession of the people and the government. It was out of this same probationary period of trial and defeat that other brave spirits like Lincoln, Sumner, Seward and Greeley, were slowly lifted with the continued confidence of their followers into leadership.

The honors, therefore, which accompanied the body of Henry Wilson from the scene of his labors to his last, or more truly his first resting-place, were not only deserved by him, but were good for every citizen who saw them. Such an event reminds men that devotion to a Republic, which is generally faithfulness and devotion lavished upon a corporation that has no soul, is sometimes acknowledged by the nation before the people at large.

THE visit of the dignitaries of Washington to us on the 18th of December, is an event of so much local importance—indeed of importance which is more than local—that we give it a special place in

bringing "The Month" to a close. In no degree discouraged by their windy reception on the Landsdowne Heights—a locality in direct communication with the caves of Æolus, as all who have visited the one, and have heard of the other place confidently affirm—the three branches of Government, Executive, Legislative, and Judicial, sat down to a feast spread for them in Horticultural Hall, by the Merchants of Philadelphia. Surrounded by hot-beds, not of corruption, but of palms and oranges—with dishes to discuss, not bills—with toasts instead of amendments, and the decanter to move as a perpetual previous question, the change for our guests must have been pleasant while it lasted. Not but that there was more in this matter than mere junketing; not that we of Philadelphia thought so little of ourselves, or the functionaries of the government, as to suppose that we could bribe them into appropriating our needed million and a half by an elaborate dinner. The object which was intended, and which it is believed is in a satisfactory way of being accomplished, was that it should be clearly understood in Washington that the Centennial Celebration is now ready to begin—that nothing substantial remains to be done—that the house is built, everything prepared—that we have but to open the door for the nation's guests, and that all we ask of Congress is to provide that we shall start without the burden of debt. That the request was a fair one, and the method taken of emphasizing it is legitimate and proper, no one, we think, will deny.

It is perhaps correct to say that no other means would have availed to ensure such a general interest in the result of the Exposition, as has been expressed by all the influential visitors to the Centennial grounds on Saturday, the 18th of December. Perhaps the most happy part of the whole programme is, as has been said, that the whole expense of conveying so many visitors from Washington and entertaining them whilst on a visit, was not borne by the invited guests, nor was it a tax on the finances of the Centennial Commission, but was the spontaneous gift of Philadelphia citizens who are resolved that the one hundredth anniversary of the national independence shall not fail of being worthily celebrated for want of public energy and means at their disposal.

After an inspection of the various buildings constructed and in course of construction, the party assembled in the Horticultural Hall to the number of 800, and partook of a repast, of which it may be

supposed, was better than the bill of fare, which was printed, it has been said, in shockingly bad French. The hall being large, and incomplete in the heating arrangements, some considerable inconvenience was felt by the ingress and egress of waiters with the various dishes—which unfortunately were brought from the caterer's kitchen half a mile distant; this was in a manner remedied, as rumor states, by an example of the President, who doubtless feeling cold as other mortals, put his hat on, and most of the guests followed his example. The ladies resumed their capes and furs, etc., thus making the banquet hall have the appearance of a restaurant or dining saloon. The speech-making which followed was of a higher order than usual after-dinner speeches are, and all who heard the address of Mr. Bullitt must have been impressed with the fact that all the expenditures have been directed with the highest business ability and fidelity, and with extreme economy. It remains now to be seen whether the undertaking will answer the purpose intended, namely, to obtain a grant of one million and a half dollars, to enable the Board of Directors to continue their labors without embarrassment, or incurring debts and responsibilities which would take much from the lustre of success.

THE JUDGES, or, as would be more just to a respectable and respected minority of them to say, a majority of the Judges of the Common Pleas have chosen the Honorable William B. Mann to be Prothonotary of their Court. The power and prominence of this office would naturally attract attention to any election to it, even if the peculiar position which the individual chosen has long held in this community did not make his success a matter of moment to each and every citizen. The office is one of considerable political power and of very large emoluments. Besides having charge of the business of the Courts of the county, he who holds it is responsible for the election returns, and upon him may depend, in a crisis, their preservation and purity. A recent example in a county in the interior throws some light upon the vast possibilities which open to an enterprising and energetic prothonotary in whom the fear of God has not crushed out affection for "the boys." It is moreover a place of some dignity. The Constitutional Convention of 1873 united the District Courts with the Common Pleas, and provided that the new Courts should have one Prothonotary instead of four, who should be the

executive arm of Judiciary. This place is, therefore, more than a mere clerkship, and the emoluments which still flow into the incumbent's hands—which are estimated to amount to \$50,000 annually—make it an object of hungry competition. So frequent have been complaints against the mismanagement of the office in recent times, and so low in general the character of the officers, that the Convention in its earnest but often vain efforts to reform, as well as re-make, decided that the Prothonotary should no longer be nominated by a convention of politicians and elected by the people, but (to remove him into a higher and purer atmosphere, as was believed,) should be chosen by the Judges about whom—notwithstanding the fact that they were themselves so nominated and elected—there still hung a sort of superstitious reverence, a thing which Pennsylvanians have long cherished, as Sydney Smith said the one superstition he could never get over was the Archbishop of Canterbury. When the Judges of the Courts of Common Pleas assembled in the clouds to choose their first Prothonotary under the new system, men watched breathlessly to see where the lightning would strike. But these are not days in which that kind of lightning strikes recklessly, or selects, as of old, the tallest trees. The times have changed, and nowadays it follows certain known laws.

In this case the wires had been carefully laid and the heavenly messages sped over them with perfect ease and without accident. With unbroken connection they led from the bosoms of seven of the judges to the brow of Colonel Mann. The Honorable Wm. B. Mann needs no introduction to a Philadelphia audience. For twenty odd years he held in his hands the thunderbolts of the law, and held them tightly, too, dispensing justice not always with too rigorous impartiality, but with results by no means unfavorable to himself in the opinion of a certain class of the community. The Union League in 1868, or rather a large proportion of its members, interfered then to prevent his re-election—for cause, they thought and even said—but in 1871 he was triumphantly returned to his familiar post of District Attorney. In 1874, however, the people of Philadelphia gave an example of the ingratitude of Republics, and in spite of the most vigorous efforts of his own party and the generous and forgiving spirit manifested toward him by certain classes of the Democracy, he failed of a re-election, running only about fourteen thousand votes behind his party ticket. Such a pub-

lic officer, however, under our present system, can never be destined to remain long out of the public service, and Mr. Mann's retirement was naturally but temporary. When, therefore, the Judges sought for one whose experience of public affairs they could rely upon, and whose character would give tone to the office, how natural was it that seven of them could be found whose thoughts turned at once to him who, as the most powerful politician in Philadelphia, could always control his own and sometimes the other party, to whom the people but lately were so ungrateful, and they hastened at once to repair the injury done by the popular election of 1874. Gratitude may sometimes be a thankfulness for past favors as well as for favors in anticipation. It is a consolation to the people of Philadelphia that they know all about the new Prothonotary, that he was recommended for the place by leading persons and the holders of high places, by military officers, superintendents, commissioners and the like, and that even so well known and long tried a public servant as Colonel Mann could not have been chosen, had he not given (as is believed) a solemn pledge to the Judges that the office should not be used for political purposes. It must be a great consolation to Mr. Mann to reflect that when a great wrong is inflicted by the people, the judiciary still stands ready to correct it, and that somehow or other, the Legislature having failed to arrange a salary for the office, he will be entitled to all the old fees during his incumbency. Of course there are dissatisfied persons, as there always will be, and complaining "Reformers," who are always finding fault with things as they are. But why need a Prothonotary and seven Judges care? "Let the galled jade wince!" And yet there are actually in existence men who think that this election is the severest blow struck in our time at the independence and character of the Pennsylvanian Bench, and that it makes the matter no better to reflect that it was self-inflicted.

PESTALOZZI, AS A PHILANTHROPIST WITHOUT MEANS
AND AN EDUCATOR WITHOUT BOOKS.¹

THE life and character of Pestalozzi are subjects full of touching interest. The impressions received many years ago from a pupil recently returned from Yverdon are still vividly remembered. His attachment to his beloved teacher, and the pleasure with which he referred to him, could be readily accounted for in looking on the life-like picture of Pestalozzi he had brought home—so expressive of a loving heart and tender sympathies.

The painful history of the trials, disappointments, alternate hopes and fears of Pestalozzi's chequered life, has become widely known through his biographies. The present sketch is intended simply to give an outline of his traits of character, strongly marked by individuality from boyhood to old age, and by enthusiastic devotion to the ideas and purposes he endeavored to bring to a successful realization. From his father, who was a physician, he inherited that benevolence and unselfishness prompting to give freely, and often lavishly, to all who ask for aid, and preventing the acquisition of wealth; and from his grandfather, a Protestant minister, who watched over the welfare of his parishioners, knew the needs of every case and sought to bring relief, he learned to feel for the suffering and the destitute. In the village where his grandfather lived there were many mills in active operation, and "here," says Krusi, "he first witnessed the contrast between extreme wealth and abject poverty. He saw the children contented and happy even in their rags, but when he compared them with those of more mature age, the victims of overwork and manifold vices, with hollow cheeks and sunken eyes, and with the appearance of constant misery upon their faces, his young soul was incensed against the selfishness of wealth, built upon such ruins of health and happiness. What he saw of the oppression of the people under an aristocratic government and the acts of injustice committed under its sway, nurtured in his breast that yearning for liberty and reformation which earned for him afterward the name of a noble-minded patriot."

Another biographer says: "The hate of wrong and the love of

¹ Pestalozzi—His Life, Work and Influence, by Herman Krusi. Essays on Educational Reformers, by Robert Herbert Quick.

right led Pestalozzi, at fifteen years of age, to unite with a league formed with Lavater and other young men in protesting against the governor of a canton and the mayor of a city by a published charge of injustice." "While we were yet boys," said Pestalozzi, "we fancied that by our superficial school acquaintance with the great civil life of Greece and Rome we could prepare ourselves for the little civil life in one of the Swiss Cantons. By the writings of Rousseau this tendency was increased—a tendency which was neither calculated to preserve what was good in the old institutions nor to introduce anything substantially better."

In a letter to the lady whom he afterwards married in his 24th year, Pestalozzi writes: "My first resolution is to devote myself to my country, and never, from fear of man, refrain from speaking when I see the good of my country calls upon me to speak. My whole heart is my country's. I will risk all to alleviate the need and misery of my fellow countrymen."

During the years immediately preceding the French revolution, the wealth of the country and those surrounding it was exclusively in the hands of the privileged classes, while the poor toiled for insufficient wages, with no thought of the future. They thus became a sure prey for the workhouse, and a burden to the community. The introduction of cotton manufactures rendered the contrast between employer and workman still more striking. Pestalozzi thus expresses his feelings on this subject: "I had, from my youth, a high instinctive value of the influence of domestic training, in the education of poor children, and likewise a preference for field labor, as the most comprehensive and unobjectionable external basis for this training; and also another reason, as it is the condition of the manufacturing population, which is increasing so rapidly among us, who, being abandoned to the operations of a mercantile and speculating interest, destitute of humanity, are in danger in case of unforeseen accident, of not finding any means of escape from entire ruin. Full of a love for my fatherland, which hoped for it almost impossible things, and longed to lead it back to its native dignity and power, I sought for the means of averting the coming evil, and of awakening anew the remainder of the old home happiness, home industry and home manners."

The influence of manufacturing wealth among the Swiss, at that time, led Pestalozzi again to write: "The paternal love of the

upper classes, and the filial love of the lower, that once bound them together in consequence of the rapid increase of the manufacturing interest, is going more and more to ruin under the effects of ignoble wealth. The blinding height of arrogance derived from a position obtained by money, the deceitful cornucopia of an unreliable life of mere pleasure, has drawn all within its destructive influence, even down to the commonest people, and carried them into the crooked path of a spiritless and powerless routine life. Truth, honor, sympathy, moderation, are daily vanishing. Pride, insolence, recklessness, contemptuousness, laxity, immorality, the eager pursuit of vain, ostentatious pleasure, the cherishing of boundless selfishness, have taken the place of the ancient simplicity, faith and honor."

The only relief for the suffering poor, provided by the government, was the introduction of poor-houses where the innocent child and the hardened sinner, the helpless sick and the shiftless vagabond, were herded together. These were mere feeding establishments, rather than homes for the unfortunate, or houses of reformation for the wicked. The occupants, when dismissed, usually returned to their vicious practices, which soon brought them back again.

Disgusted with the artificial systems of society, revolted by the pride and selfishness of the higher orders, and touched by the miseries of the laboring classes, the poor and neglected childhood, exposed to temptation and unprotected by principle, industrial training or habits of industry, Pestalozzi determined to try the effects of education.

It was for this growing evil that the ever-active mind of Pestalozzi tried to find a remedy. He proposed the establishment of schools, in which instruction in manual labor should be combined with the ordinary mental and moral training. After having advocated his views publicly, he offered his house and farm for the purpose of making the experiment.

Determined to try what education might do, he received fifty children into his house, most of them orphans or children of vagabond beggars, and began, in 1775, an industrial school for the poor, the first of the kind ever conceived, and the mother of hundreds now existing on both sides of the Atlantic. Regarding the family system as the best mode of training, he acted as a father to all, and taught them knowledge useful in their circumstances. He instructed them while employed in manual labor by talking with them, drawing

out their ideas and developing their judgment. To make such a scheme a success, was certainly no light undertaking, and to a man like Pestalozzi, impossible.

His enthusiasm and impatient zeal carried him with irresistible power in pursuit of one grand object, and would not allow him to stop and measure every inch of ground over which he had to go. He struggled for a long time in the noble cause of the poor, until he became poor himself. In 1780 the school had to be given up, and had been carried on for five years without aid from individuals or the public body.

His ignorance of business and the lack of a faculty of learning it practically caused him to fall each succeeding year deeper and deeper in debt. The sacrificing generosity of his wife helped him out of his financial difficulties, until there came an end of this means of help. His neighbors respected him, but their confidence in his abilities changed; they lost all faith in his enterprise and his capacity as a teacher. But such is the way of the world. It treated Pestalozzi when poor as all are treated whose poverty is regarded as their own fault.

"I have no time to make money," said Agassiz when the suggestion was made to him. When he died, the breaking up of his favorite school at Penikese and the forced sale of his long treasured gatherings became the consequent result. As there are few men so wholly engrossed by philanthropy or science as to forget that money is a necessity, as did Pestalozzi and Agassiz, they also meet with few who can understand or appreciate their devotion to such pursuits.

Pestalozzi felt most deeply the condition of his noble wife, who, in the excess of her devotedness to him, had mortgaged nearly all her possessions. In their handsome country-house at Neuhoff they were often destitute of bare comforts, having only a limited supply of means to defend his family from cold and hunger. Only the forbearance of his creditors and the kind help of his friends kept him from despair and utter ruin. He lived as a poor man among the poor, suffered what the common people suffered. He studied the wants of the lower classes and the sources of their misery in a manner which would have been impossible for one in different circumstances.

The natural buoyancy of his spirits did not allow him to give

himself up to despair. He thus writes: "In the midst of the withering sneers of my fellow-men, my heart ebbed and flowed as it ever had to stop the sources of misery. My failure even showed me the truth of my plans." At this time, from necessity as well as choice, Pestalozzi began to write articles for a Swiss journal, and to publish books, in which he appealed to the public to bestow their attention upon some of the most sacred interests of humanity.

From 1780 to 1798, he espoused the cause of the poor and oppressed, sharply criticising the existing abuses of society. The titles of these works show the range of his efforts—"The Tendency of Penal Laws to Increase rather than Diminish the Sources of Crime," "The Moral Improvement of Criminals," "The Temptations that surround Females of the Lower Classes," "Popular Education," "Investigation on the Course of Nature in the Development of the Human Race," "Evening Hours of a Hermit," "Leonard and Gertrude."

Although these writings are all distinguished by originality and thought and inspired by philanthropy, not one made more impression than Leonard and Gertrude. This, he says, "was a work extorted from me by sympathy with the sufferings of the people. I desire nothing now, as the object of my life, but the welfare of the people whom I love and whom I know to be miserable, as few feel them to be miserable, because I have borne with them their sufferings as few have borne them."

The consequences of the French Revolution called Pestalozzi from his political calculations. He had hoped that the condition of the people would be bettered, but he found no basis and was brought to himself. In his earlier years, as previously quoted, he had perceived that "the tendency of the writings of Rousseau was neither calculated to preserve what was good in the old institutions, nor to introduce anything practically better." But he had not anticipated the terrible excesses committed in the name of liberty. The lower classes of France and of other countries, emancipated from obedience to their hereditary rulers, set at naught even the rules of justice and humanity, and considered liberty permission to indulge in violent passions. Hence the people soon engaged in a war of self-destruction, at which the better part of humanity shuddered.

Pestalozzi's mind was too clear and far-seeing not to note³ the

³ Krusi.

dangers that threaten when liberty degenerates into license and the sceptre of power is wielded by those who could not govern themselves. In his younger days he had cherished the idea that the welfare of the people could be obtained by the improvement of outward circumstances; but he now saw and felt the important truth, that for man to be truly free, his moral nature must be developed and cultivated. The same idea is expressed in the precept of Jesus: "Seek ye first the kingdom of God and His righteousness, and all these things shall be added unto you."

After this conviction of the fallacy of trusting to governmental expedients, Pestalozzi expected but little good from merely political changes unless they were accomplished by the elevation of the masses, and his whole heart impelled him in the direction in which this could best be accomplished. This truth is as apparent at this day to every thoughtful observer. "Political and social institutions," says Professor Seelye, "cannot be made for any people: they must grow out of the spirit and character and tendencies of the people by whom they are adopted." The direction taken by Pestalozzi to elevate the masses, was to begin with the children. Some of his friends, and a few members of the Government who, like himself, regarded the education of the masses as the main pillar of the State, were willing to procure for him an influential position; but it was left to Providence to indicate the particular spot where he was destined to commence his immortal labors.

The year 1798 saw Switzerland the battle ground between the French, Austrian and Russian armies. The Swiss were compelled to take sides with one or another of the contending parties. The influence of France was very great, but her centralizing tendencies were odious to the old republics. After France had vanquished the ill-organized resistance of the Swiss, who were divided among themselves, they forced upon the Cantons a new constitution, modeled after that proclaimed by the Directorial Government of France. By this constitution the power of the larger Cantons was diminished, while several of the smaller ones were consolidated into one, and deprived of a portion of their democratic institutions.

In most places the people accepted their fate with silent and unresisting sorrow. The small canton of Nidwalden alone sought to maintain its independence. Enraged at this opposition to its plans, the French Government sent its legions against this unfortunate val-

ley. The brave mountaineers rallied for the defence of their homes. In revenge for their resistance, the invaders commenced a horrible massacre. The whole region seemed doomed to destruction. Men, women and children were shot. Every village except Stanz was burned, and this only spared by the intercession of a French officer.

The news of these atrocities produced a deep sensation of pity and indignation throughout Switzerland, and the government instituted means to save the remnant of the unfortunate people from starvation. In Pestalozzi's soul compassion was associated with an overpowering desire to do something for the sufferers, especially the orphaned children, who now, more than ever, needed the healing remedy of a sound education. His resolution was at once taken, and without delay he made an offer to the government to go to that desolate valley, there to collect and instruct the poorest of the children. His offer was accepted, and henceforth his vocation as schoolmaster was fixed.

³The Helvetic Government, although in some respects the tool of France, yet counted among its members men who would be an honor to any State—men who had studied the wants and necessities of the people and who were earnestly devoted to the task of finding a remedy for existing evils. Of these men Le Grand, President of the Council, and Stapfer, Minister of Arts and Sciences, deserve the highest place. They were staunch and unflinching supporters of Pestalozzi, and their conduct is a strong contrast to others, who were accustomed to judge character by outward success.

The report submitted by Stapfer to his colleagues in regard to Pestalozzi's mission to Stanz, displays the views of a wise statesman as well as an intelligent friend of education. He says, "Permit me, Citizen Directors, to remind you on this occasion of the principal points in the plan of Pestalozzi; such are indicated in his classical book 'Leonard and Gertrude.' He unites practical application with elementary instruction, develops and fortifies early habits of industry, and bestows his attention on all subjects which will facilitate the labor of the working classes. A good education must enable the pupil to secure for himself, by his principles, his sentiments and actions, a path to happiness. It brings into play all the faculties and takes advantage of everything in his earliest years which may have an influence on his success in the circumstances in which he may be

³ Krusi.

placed. Pestalozzi's first care is directed to the child's physical wants. He habituates him to all kinds of work. He wishes to keep his pupils from all useless wants and desires, and to implant a love for simplicity and a contempt for everything that is superfluous and enervating. He requires them to practice rural and domestic occupation, to inspire them with a love of order.

"If the project succeeds, it must be a model school and be productive of others of the same kind. If it does not succeed, it will, at least, have supplied new, interesting and useful experience."

In this and other addresses of the same kind the warm-hearted Stapfer alludes to Pestalozzi as "that grand, unappreciable man whose ardor for the improvement of his fellow-men age has not been able to dampen and whose heart ever burns with a sacred fire for the human race." When the offer of Pestalozzi to take charge of these children was accepted by the directors he was ready to go. "I went," he writes: "I would have gone to the remotest clefts of the mountains to come nearer my aim, and now I really did come nearer." Pestalozzi's resolution to go to Stanz seems to have been one of those inspired acts which are not weighed in the scale of reason. The inhabitants of the town were governed by priests from whom little sympathy could be expected. Add to this the general devastation of the country, the want of food, shelter and other necessaries of life, and the reader can judge whether any inducements were offered to a man fifty-three years of age, of frail physical constitution, and weary from disappointment and care. The saying of a philosopher that "great ideas spring from the heart," was true of him. It was love that urged him to ponder over the means of helping his poorer brethren; love that enabled him to persevere in his efforts under the most perplexing difficulties. When speaking of his resolution he said, "I knew not exactly what I could accomplish, but I knew what I wished—to die or carry out my plans."

The empty convent assigned for his school required alteration. There was but one room fit for occupation when he arrived. But when it was known the convent was open, children came flocking in before the kitchen, school and bed-rooms were finished. The appearance of these ragged, neglected little ones would have been revolting to almost any other man, but Pestalozzi saw before him immortal souls which might be saved from the sloth of mental and moral perdition. And for these he undertook the management, the

clothing, feeding, teaching, and even the most menial offices. This love did not lose its reward. By degrees it gained him the affection of the children, and introduced harmony and order into the chaos which first surrounded him.

The very disadvantages in which he was placed drove him to discoveries he never otherwise would have made. His whole school apparatus consisted of himself and his pupils; so he studied the children themselves, their wants and capacities. "I stood in the midst of them," he says, "pronouncing various sounds, and asking the children to imitate them. Whoever saw it was struck with the effect. It is true it was like a meteor which vanishes in the air as soon as it appears. No one understood its nature. I did not understand it myself. It was the result of a simple idea, or rather of a fact of human nature, which was revealed to my feelings, but of which I was far from having a clear consciousness." Again, he says: "Being obliged to instruct the children myself, without any assistant, I learned the art of teaching a great number together; and as I had no other means of bringing the instruction before them than that of pronouncing everything to them loudly and distinctly, I was naturally led to the idea of making them draw, write, or work, all at the same time.

"The confusion of so many voices repeating my words, suggested the necessity of keeping time in our exercises, and I soon found that this contributed materially to make their impressions stronger and more distinct. Their total ignorance forced me to dwell a long time on the simplest elements, and I was thus led to perceive how much higher a degree of interest and power is obtained by a persevering attention to the elementary parts until they be perfectly familiar to the mind; and what confidence and interest the child is inspired with by the consciousness of complete and perfect attainment, even in the lowest stage of instruction. Never before had I so deeply felt the important bearing which the elements of every branch of knowledge have upon its complete outline, and what immense deficiencies in the final result must arise from the confusion and imperfection of the simplest beginnings. To bring these to maturity and perfection in the child's mind, became now a main object of my attention, and the success far surpassed my expectations. The consciousness of energies hitherto unknown to themselves was rapidly developed in the children, and a general sense of

order and harmony began to prevail among them. They felt their own powers, and the tediousness of the common school tone vanished like a spectre from the room. They were determined to try—they succeeded, they persevered, they accomplished and were delighted. Their mood was not that of laborious learning, it was the joy of unknown powers aroused from sleep; their hearts and minds were elevated by the anticipation of what their powers would enable them to attempt and to effect."

Thus during a short period, not more than a year, spent among the children at Stanz, he settled the main features of the Pestalozzian system. Biber is quoted as saying "Pestalozzi did not burden their minds with the memory of words whose meaning the children did not understand; but he led them gradually to the discovery of truths, which they could never forget. He drew forth life to the mind and life to the heart from the fountain of life within, and thus established a new art of education, in which to follow him requires on the part of the teacher not a change of system, but a change of state. Its excellence consisted in his power to reach the hearts of the children, and to stimulate them to mental exertion. They had no lessons to commit to memory, but they had always something to investigate—they gained little positive knowledge, but their love of knowledge and power of acquiring it increased daily." At the end of a single term the result of this course of instruction was manifestly great. The children had improved so much, physically and morally, that Pestalozzi said, "they seemed entirely different beings from those I received six months before, neglected, ragged and filthy."

But yet he stood entirely alone. There was no admiring school committee to sound his praises; not even one to visit his school, no brother pedagogue to give him countenance and advice. What was it then that kept his spirit alive, and seemed to impart to his very body the buoyancy and strength of youth? It must have been the consciousness of doing good and a vision of the eternal principles of education, combined with an unbounded confidence in God and the possibility of improving the human race. To the philanthropist and friend of education, Stanz will always be a hallowed spot, exhibiting the picture of this venerable teacher sitting among the out-cast children, animated by the spirit of Christ, and by a great idea which not only filled his own soul, but inspired those who had known of his labors.

It is thus he speaks of his self-denying work at Stanz: "I was among them from morning till evening. Everything tending to benefit body and soul I administered with my own hand. Every assistance, every lesson they received, came from me. My hand was joined to theirs, and my smile accompanied theirs. They seemed out of the world and away from Stanz; they were with me and I with them. We shared food and drink. I had no household, no friends, no servants around me; I had only them with me. Was their health good, I enjoyed it with them. Were they sick, I stood at their side. I slept in their midst. I was the last to go to bed and the first to rise. I prayed with them, and taught them in bed till they fell asleep."

We see from Pestalozzi's own words, that his chief aim was to carry out one of his most cherished ideas—to impart to the school the character of a family. Like a good mother, he relied less on words than on actions, to enlist the sympathy of the children. The fact that he worked under less favorable circumstances than most mothers have to encounter, only tends to increase our admiration for his wonderful insight into the mainsprings of human actions, and for the motive which stimulated him.

In June, 1799, a French company of soldiers took possession of the convent which Pestalozzi occupied. As there was no appeal from force he relinquished his labors, and after having supplied his beloved pupils with clothing from the remaining part of the fund granted for that purpose, he took leave of them with tears and sobs. His own feelings are thus expressed in a letter to his friend Gessner: "Imagine with what sensations I left Stanz. Thus might feel a shipwrecked sailor, who sees land after weary and restless nights and draws the breath of coming life, but is thrown into the immensity of space. This was my own condition. Think of the fullness of my heart, the greatness of my plans, my success and my ruin, the trembling of my disordered nerves and my mute agony."

After this painful event Pestalozzi repaired to the rural home of his faithful and sympathizing friend Zehender, in the Canton of Berne, where he spent some time in regaining his shattered health. In the immediate neighborhood, upon a plateau above the beautiful lake of Thun, are the baths of Gurnigel. The scenery in this region is among the finest in Europe. The eye looks down on a wide plain strewed with hamlets and villages, and bounded by the snow-capped

summits of the Bernese Alps. Respecting this visit Pestalozzi says: "I looked with admiration from the height of Gurnigel upon the immense valley with its mountain border, and yet I thought at this moment more of the badly-instructed people it contained than the beautiful scenery. I could not, nor would I live, without the endeavor to accomplish my aim."

He was poor and emaciated, yet as enthusiastic and determined as ever. His experiment at Stanz, like that at Neuhoff, though apparently failures, yet he considered them a success from the experience he had gained, and especially in the last, as he had demonstrated the practicability of his principles.

The sudden ending of the school at Stanz left Pestalozzi without occupation. His only desire was for employment in a school, no matter how low the grade. He accepted a position as teacher at Burgdorf, and continued his experiments in simplifying elementary instruction as far as the mechanism of the school permitted it. The honor of giving the first public testimony of the value of Pestalozzi's educational principles belongs to the school committee of Burgdorf. It was stated in the report: "He has shown what powers are hidden in the feeble child and in what manner they can be developed. The pupils have made astonishing progress in some branches, thereby proving that every child is capable of doing something if the teacher is able to draw out his talent and awaken the powers of his mind in the order of natural development."

Some of these exercises, such as object lessons and others, were out of the ordinary school routine. In making these innovations Pestalozzi had little difficulty with the children, for they always enjoyed such teaching; but it was hard to convince the parents that their children could profit by any instruction that had not the scholastic character to which they had been accustomed. A man once said to him, "Why, these exercises are so simple that my wife and I could give them at home." "The very thing you ought to do," replied Pestalozzi, delighted to have an opportunity to speak in behalf of domestic education.

In less than a year Pestalozzi left the school in bad health, and joined Krusi in opening a new school in Burgdorf Castle, for which, in 1802, he obtained government aid. Here he was assisted by Krusi, Tobler and Bluss, which enabled him to have sufficient leisure to embody his experience in a work of great celebrity, "How

Gertrude teaches her children," and in this are given the original plan of the founder and the results of his initial experiments.

His biographer, Krusi, states respecting the work: "Learned scholars, who were at first disposed to question the ability and reprove the boldness of a partially educated man who dared to enter upon abstruse philosophical discussions, were disarmed and partly converted by the nobility of the thoughts uttered and the real humility of the man who expressed them. The magnitude of the work to be done and the terrible need of the suffering poor were the motives which urged him to write. Though often crude in expression, his writings all contain precious germs of thought."

"What I desire," said Pestalozzi, "is not to teach the world any new art or science, but to make it easier for the people to master the beginnings of all sciences; to develop the powers of the poor and weak, who are neglected and given up to desolation; to open the avenues of learning which are the approaches to humanity. Notwithstanding our empty boasting of universal enlightenment, nine men in ten are deprived of the right of all men—the right of instruction, or at least the possibility of using it.

"The highest attainments can only be reached by means of a finished art of teaching and the most perfect psychology; thus securing the utmost perfection in the mechanism of the natural progression from confused impressions to intelligent ideas: this is, in truth, beyond my power.

"It is my effort to remove the imperfections from common school instruction; to knit it to the power of nature, to the light which God kindles and maintains in the hearts of parents, and in their desires that their children may serve God and be respected by men. In their early childhood the little ones are left to the full enjoyment of nature. They are allowed to imbibe its cheerful influence through every pore. After having tasted the bliss of sensuous life, the scene of their pleasures at once vanishes from their eyes. They are thrown into badly ventilated rooms; they are doomed for hours, days and years to the contemplation of dry, monotonous letters. Can the blow of the executioner, which transfers the criminal from life to death, have a greater influence on the body than such a transition from the pleasant teachings of nature to the miserable discipline of our schools? Will men remain blind forever? Will they never look to those primitive sources from which the confusion of minds, the

destruction of innocence, the ruin of health and all the consequences arise, drawing many to an unsatisfactory existence or a premature death?"

"My experiments," continues Pestalozzi, "led me to trace the various branches of instruction to their very elements. I endeavored to find out the time of life when instruction should begin." The first tutor is nature, and her teaching begins when the child's senses are opened to the impressions of the surrounding world. The feeling of novelty with which life surprises the infant is in itself the unfolding of the capacity of receiving these impressions. It is the starting of the germs of mental power. Whatever therefore man may attempt to do by his tuition, he can do no more than assist in the effort the child makes for its own development. To do this, so that the impressions made may always be commensurate to the growth and character of the faculties already unfolded, and also in harmony with them, is the great secret of education.

"The knowledge to which the child should be led, must be subjected to an order of succession, beginning with the first unfolding of his powers, and the progress kept parallel to that of his development. I saw clearly that the child may be brought to a high degree of knowledge, both of things and language, before it would be rational to teach him reading or spelling. Seeing this, I felt the necessity of presenting things to children from early childhood in a manner calculated to draw forth into action the several faculties."

Pestalozzi rejected as an empty mockery the superficial book-knowledge, which, up to that time, the most enlightened had made the basis of education. He says: "A man who has only word-wisdom, is less susceptible to truth than a savage. This use of mere words produces men who believe they have reached the goal, because their whole life has been spent in talking about it, but who never ran toward it, because no motive impelled them to make the effort; hence I came to the conviction that the fundamental error—the blind use of words in matters of instruction—must be extirpated before it is possible to resuscitate life and truth."

"It is frequently alleged," says Krusi, "that the Pestalozzian method discards the use of books; and the maxim, 'A child should never be told what he can find out for himself,' is quoted in proof of the charge. It is evident that the first lessons of childhood, upon every subject, must be presented through the senses. Children

should examine things rather than read about them; and should express the results of their investigations in their own language, rather than adopt that which they find in books. This is especially true in regard to the natural sciences, which can never be thoroughly understood without illustrations or experiments. Even the elements of mental and moral philosophy are better taught by referring to the consciousness and experience of the pupil than by examining any system of philosophy. The attitude of the Pestalozzian toward books may be summed up in a single sentence. They are to be used to supplement experience, and to supply those facts that are not readily accessible by direct investigation."

Pestalozzi says: "The moral, intellectual, and executive powers of man must be nurtured within himself, and not from artificial substitutes. Thus faith must be cultivated by our own act of believing, not by reasoning about faith; love, by our own act of loving, not by fine words about love; and thought by our own thinking, not merely by appropriating the thoughts of other men; and knowledge by our own investigation, not by endless talk about the results of arts and sciences."

From the general spirit and tendency of Pestalozzi's works on education, forming the basis of his system, is the natural, progressive, and symmetrical development of all the powers and faculties of the human being. Many of these truths have been distinctly enunciated by Socrates, Plato, and others; and some have been given to the world by the profound thinkers of the Christian era. These truths had long existed as intellectual convictions in the minds of philosophers, and had been expressed in proverbs and apothegms; but it was Pestalozzi who first showed, by actual experiments, how they might be made the basis of universal education, and the means by which humanity might be elevated.

In his whole work, Pestalozzi was inspired by the highest morality and the deepest religious convictions. He never claimed to be a religious teacher, yet his work lays the foundation of all spiritual culture. He shows how the germ of conscience in the mind of an infant is quickened into action, and what must be the successive influences which will contribute to its growth. He makes all education culminate in character, and by this standard he measures all educational processes. When he proved that the faculties should be unfolded according to their natural development, he undermined

empiricism; when he pointed out the value of objective teaching, the idolatrous worship of words was condemned by human intelligence; and when he so eloquently and faithfully demonstrated the necessity of observing and respecting the individuality of every child, he showed the evils of arbitrary authority and routine. "No matter how slowly these ideas make their way, no matter how fiercely they may be assailed," says Krusi, "they are the leaven in the measure of meal, and will show the importance of the great educational movement which he inaugurated."

The above testimony from Pestalozzi's own writings, and the comments of his biographer, bear evidence to the leading ideas of the philosophy of Pestalozzianism; but the power and individuality of his life-work are most strikingly realized when he stood alone in the midst of his pupils at Stanz, without any intervening agency between them. It was from these untrained, untaught children, that he studied the truths he afterwards revealed. They were drawn to love him, because they felt that he loved them. Conscious that he knew them as they really were, they had no motive for deception.

In his own dear son, Pestalozzi had studied child-nature in its favorable aspect; but the little outcasts who had none to love or care for them, being left from infancy to the evil influence around them, these demanded a deeper study, which brought the anxious inquiry, "what must be done to save them from the injuries of the past?"

It was not the ideal *Emile* of Rousseau, with his unnatural and baseless theory of education, never tested by experiments upon living subjects, that could give an answer; nor was it the truths enunciated by Socrates, Plato, or by any of the thinkers of a later day, that came to Pestalozzi's assistance. He had no books, for he knew they were of no use in his intercourse with these pupils. The needed light was brought in the process of his own experiments upon their hearts and minds. His own loving words, coming from the depths of his own soul, arrested their earnest attention and left their impress for life. If he had read to them the most eloquent passages from his own works, these would have failed to touch their hearts or to make a place in their memories. The success of his experiments was owing to the power of that loving sympathy and quick perception that enabled him to realize their special need and to minister to their moral deficiencies kindly and wisely.

In the school at Burgdorf, there were assistants who aided in car-

rying out the principles of Pestalozzi, and it is said the time spent there was to all the most profitable and pleasant in their lives. But from political changes, the funds for the support were taken out of the hands of the central government, and the building had also to be surrendered to the governor of the district. Pestalozzi had to look for another place. He accepted an invitation from the inhabitants of Yverdon, and joining his assistants who had gone there, the Institution was opened in the castle. At Burgdorf his name had become widely known as an educator, but at Yverdon it afterwards gained a world-wide celebrity.

The spirit that prevailed there is thus described: Teachers and pupils were united by the love which Pestalozzi seemed to impart to all who came within his influence. The children forgot they had another home, and the teachers that there was any other world than the Institution. The morning and evening devotions in which all joined, and above all the spirit of brotherly love which seemed to pervade the members of the whole school, gave evidence that the loving precepts of Christ were received by willing ears and intelligent minds. This was the crowning glory of the whole system.

The popularity of the Institution increased with its celebrity. Pupils came from Germany, England, France and Sweden, and teachers went from it to Madrid, Naples and St. Petersburg. Kings and philosophers visited it and joined in doing it honor.

But it became too large for Pestalozzi to govern. His time was fully occupied in superintending his large and heterogeneous assembly—in an extensive correspondence, in literary labors, and in attending to the financial management of the Institution. Of the great number of pupils, scarcely two-thirds paid full board or tuition; some paid nothing at all. Although urged to caution by his early experience, yet he always forgot his worldly interests when the welfare of humanity touched his heart. No pupil was rejected on account of poverty, but every one who showed a desire to improve was always admitted.

The life of the Pestalozzi Institution had been the love which the old man had infused into all the teachers as well as the children; but its enlargement required a greater number of assistants, and among those introduced was one of a selfish, arbitrary character, who took his own course in undermining the authority of Pestalozzi, and producing discord and disaffection where all had been peace and love.

For a time the wife of Pestalozzi acted as the minister of peace between the hostile parties, and during her last illness the old teachers refrained from remonstrances out of sympathy for the deep affliction of their venerable friend. This noble woman died on the 11th of December, 1815, aged nearly 80 years. She had been the faithful partner of Pestalozzi for nearly half a century. At the funeral after the hymn had been sung, Pestalozzi, turning toward the coffin, said: "We were shunned by all when sickness and poverty bowed us down, and we ate dry bread with tears. What was it, that in those days of severe trial gave you and me strength to persevere and not lose hope?" Then he took a Bible which lay near at hand, pressed it to the breast of the corpse and said: "From this source you and I drew courage and strength and peace."

Soon after the death of Madame Pestalozzi, many of his old assistants resigned in consequence of the arbitrary proceedings which Pestalozzi, broken in spirit and health, had not resolution to prevent. This proved eventually the ruin of the school. In the midst of these troubles, his heart went longingly back to his former efforts to establish his school upon a system of family government. Ramsauer thus refers to that period at Burgdorf: "So much love and simplicity reigned in that Institution! Life was so simple! so patriarchal! Pestalozzi's morning and evening prayers had such a fervor, that they carried away every one who took part in them. He read and explained the hymns impressively, exhorted each of the pupils to private prayer, and heard them repeat every evening those they learned at home; while at the same time, he taught them that mere reciting prayers by rote was worthless, and that every one should pray from his own heart."

"Such exhortations," continues Ramsauer, "became more and more rare at Yverdon. So long as the institution was small Pestalozzi could, by his amiable character, adjust any slight discordance. He stood in close relation with each individual member of the circle, and could thus observe every peculiarity of disposition and influence it according to the necessity. This ceased when the family life was transformed into that of an organized school. Now the individual was lost in the crowd, and consequently there arose a desire on the part of each to make himself felt and noticed. Every day egotism made its appearance in more prominent forms. Envy and jealousy rankled in the hearts of many. Pestalozzi, however, remained the same noble-hearted man, living only for the welfare of others."

After a painful struggle for existence, the institution at Yverdon, deserted by its best teachers and by most of its pupils, had to be given up. Pestalozzi's feelings were of a most painful character on leaving a place where he had spent nearly a quarter of a century, and about which clustered so many glorious as well as humiliating associations. In a letter to a friend he writes: "It seemed to me the closing of the Institution was the closing of my life." At the inauguration of a school for destitute children, founded with the money raised by subscription to his works, he thus addressed those who were present: "Accept my words as those of your father who is approaching the grave, who has deeply felt the misery of the poor, especially that portion which can be relieved by the blessings of education. Alas! it is only near the end of my life that I am enabled to give a mite for this purpose, and to leave its execution to you. Let my care for the sanctity of education devolve on you. Let every harsh and unkind feeling be banished from your hearts, through the power of faith and love. Let no one say Christ does not love him who has done wrong. He loves him with divine love. He died for him. He did not find the sinner faithful, but He made him so by His own faith. He did not find him humble, but He made him so by His own humility. Friends, if we love one another as Christ loved us, we shall conquer all difficulties and found our house on the eternal rock on which, through Jesus Christ, God has placed the welfare of the human race."

Pestalozzi returned to his beloved Neuhoff, which belonged to his grandson, and there with his family quietly celebrated his eighty-second birthday. Soon after this he was prostrated by a fever, and breathed his last on the morning of February 27th, in the year 1827.

THE JOURNAL OF A GEOLOGICAL SURVEY OF JESSO.

AMONG the indications of progressive civilization among the Japanese, few are more noteworthy than the appointment by the government of an officer charged with the development of the economic resources of the empire. The selection of an American to occupy this important station is one of the evidences of the esteem in which our people and institutions are held by this nation of Orientals; and the appointment of our former Commissioner of Agricul-

ture, the Hon. Horace Capron, will doubtless be the means of realization of reasonable expectations. First among the essentials of the proposed enterprise comes a geological survey, in order that an approximate idea of the mineral wealth of the country may be obtained by its citizens. For the conduct of this part of the work Mr. Capron selected Benjamin S. Lyman, of Philadelphia, whose official title is Chief Geologist and Mining Engineer to the Kaitakushi. This gentleman is well known in American scientific circles, by his services in the development of the geological structure and products of the Alleghany region, and is known also abroad by the examination and report on the geology of the Punjaub oil region of Northern India. The few years which have elapsed since his departure for the work in Japan, have added much to our knowledge of the structure of that hitherto geologically unknown region; and first in economic importance is the discovery of very extensive deposits of coal.

In the following pages an account of some of the explorations of the survey under Mr. Lyman, is given in his own words. The extracts are taken from his report to Gen. Capron, which was published the present year at Tokei, in English and Japanese.

On the 18th of May last, we left Yedo and went on board the steamer *New York*, at Yokohama; on the 19th at daybreak, we sailed for Hakodate; arrived there late in the evening of the next day; and landed on the 21st, and began preparations for the journey to Sapporo, and I gave written instructions to my assistants. The 23d of May, I accompanied you on a visit to the Government farms at Nanai $10\frac{1}{2}$ miles ($4\frac{1}{2}$ *ri*) distant, and returned to Hakodate the same day. The 24th was Sunday, but one party of my assistants started for Sapporo; on the 25th further preparations for departure were made; and on the 26th I set out in your company for Sapporo, and we reached Mori, $28\frac{3}{4}$ miles ($11\frac{1}{2}$ *ri*), the same day.

On the 2d of June, we rode by Shiraoi to Tomakomai, 31 miles ($12\frac{1}{2}$ *ri*); passing on the way the Tarumai Volcano to our left. A man at a tea-house on the road opposite the Volcano told us that the late eruption began at noon on the 8th of February last, and continued until noon the next day; but that it was most active from five in the afternoon until two o'clock in the morning. The woods and bushes were set on fire to a distance about half way from the crater to the tea-house. The material thrown out was pumice of a

• light brown color in pebbles about the size of a filbert; and it covers the ground, partly burying the grass, and rests on the roofs of houses along the road to a depth of about three-tenths of a foot, but is confined to a short space only. The smoke rising from the volcano when we passed was much more conspicuous than it was last year, and about ten times greater in quantity, the man said. Nobody had yet gone up to the crater since the eruption.

On the 3d of June, we left the sea-shore, which we had so far followed with its narrow plain of pumice and with its mountains to our left; and rode inland, still on the New Road by Stose (Chitose) as far as Shimamap, about twenty-seven miles and half (11 *ri*). Near the hotel there was the first rock exposure, a layer of compacter pumice than usual, or perhaps trachyte, some ten feet thick, in small cliffs and in a cutting on the road. On the morning of the 4th, we rode on to Sapporo, thirteen miles and three quarters (5½ *ri*), over a rather broken country most of the way, as indeed it had been since leaving Chitose.

On the morning of the 17th, the weather seemed finally to have cleared off, and my assistant, Mr. Akiyama, and my interpreter and I started in boats on the Toyohira, about a *ri* from Sapporo. We had two large row boats and eleven canoes manned by Japanese coolies and by Ainos, and loaded with our baggage and large supplies of rice and other food, enough for our trip up the Ishcari and some of its branches and across the mountains, until we should meet some boats sent up the Tokachi river with food for us, a journey that it was reckoned might last seventy-five days. We had with us, besides the crews, two servants and two Japanese coolies. The river where we started was said to be about half a foot higher than common.

The next morning (18th June) the interpreter and I went on up the Ebets with seven canoes and three Ainos in each, besides my two servants and the two Japanese coolies and ten days' provisions. We paddled along most of the way among the trees that bordered the river, for the banks were overflowed. At noon we reached the Yubaribets branch, and went up it several miles that afternoon, passing through a wide lake-like expanse of water. The next day (19th June) we went on some miles further in the morning, finding the river now within banks, and having here and there pebbly beaches which contained pebbles of coal. The afternoon was very rainy and we stayed in camp.

The timber that we saw on the way did not on the whole seem

very valuable, especially on the lower waters, where it was chiefly willow. On the upper waters was some good timber. On the other hand there was a great deal of open prairie land, particularly one very long prairie on the left bank of the Ebets, which must contain some five thousand acres or more. If a road should be built straight from Sapporo to the coal we surveyed up here last July, it would pass right through that prairie. Near the mouth of the Yubaribets there is on that stream a great deal of low wet land.

The next day, 21st June, we came back rapidly with the current to the mouth of the Ebets, where we had left Mr. Akiyama with the rest of the boats and men and baggage. On the evening of our first arrival there, some additional Ainos from Ishcari that had been engaged joined us. Night before last, before dark, the Ainos played an interesting game; two parties some twenty yards apart threw back and forth a ring some six inches in diameter which the opposite party tried to catch upon long poles (like lances), probably the ones they had been poling the canoes with. It was a very picturesque sight to see them rushing forward eagerly with spears high in air, trying to catch the ring.

On the 30th of June the weather improved, and we set out at once up the Ishcari; and that afternoon reached the narrow neck of only seventy feet in width where the Ishcari winds around for a couple of miles at the mouth of the Bibai river. We camped on the neck (called Bibaidap), and the empty boats were all hauled across within ten minutes, except one boat, which being in advance and manned by strangers did not notice the neck, and went all the way round and was astonished to find our tents already pitched on the shore far in advance of them when they came in sight. With the hand level we found the difference of level of the water on the two sides of the neck to be 1.9 ft. The bank is already cut down by the floods to within about two feet of the level of the water on the upper side.

The 2d July brought us some distance above Naye brook, and on the way we passed an Aino village of some five houses at Ura-shinai, and picked up some Ainos of the Middle River region. Their salutations with some of our former men at the first resting place we came to were very elaborate and grave and silent, and were not even followed by any talk at first; and evidently there was no desire to learn the latest news on either side. That afternoon we passed Kabato river on our left, but it was so insignificantly small

that I did not recognize it nor know of it until we had gone far beyond next day.

We had to camp at the Borato brook, a mile below the nearest coal, and on the morning of the 4th of July went on five miles or so to the principal exposures at Kebushinai. All the exposures are in the cliffs along the banks of the Sorachi. We stopped and measured *the beds of coal* and some of the rocks as we went along. They said there was no coal further up, but that evening I found some large lumps of it on the beach a quarter of a mile above, and the next morning (5th July) we went beyond and found still a very *fine set of exposures of all the coal beds*. Owing to the windings of the river and the changes of dip of the coal beds, these are *exposed each two or three times*. The beds (to tell the best of the story first) are very fine as to thickness, and some of them as to quality. The *thickest coal bed* has the *enormous thickness of nineteen feet* at one place, but not the best quality; at another place a thickness of *thirteen and a half feet* of coal; another coal bed has *eight feet* and seven-tenths of thickness and the best quality at two places; another, *six feet* and six-tenths and the best quality; besides that, there is a bed of *four feet and a half*, one of *four feet* and one of *three feet and a half*, making *six workable beds*, and a thickness in them, all together, of about *thirty-six feet*. The thickness, however, varies very much at different points. As for quality, the appearances are good; but we have taken samples for assaying from the different workable beds, as Mr. Enomoto's last year was probably selected of the very best quality, not as an average, and he did not know certainly from which bed it came.

We reached Kebushinai on the 4th of July, and staid there over the next day, Sunday, and came back here on Monday, (6th July,) after taking the samples. Yesterday, (7th July,) and to-day, I have been finishing sketch-maps, sections and instructions for the guidance of Mr. Yamauchi and his party when they arrive in this region. The big boat having carried its load some distance above this, returns now.

On the 8th, we set out again on our way up the Ishcari, although it was about two o'clock. We reached in less than a mile the Tuppu river, which is put down on the maps as somewhat higher up. We went a quarter of a mile up stream on it, and searched carefully for bits of coal among the beach pebbles, and at length found a large

number of very small ones; showing that there is probably coal up the river, though a good ways from the mouth. The river comes to the Ishcari from the West, and at the mouth is some fifty feet wide and perhaps three feet deep.

A quarter of a mile above its mouth we passed, on the easterly bank of the Ishcari, a village of five Aino houses, some of whose inhabitants were on the bank looking at us; but considering the rareness of foreigners in these parts, there seems to be less curiosity about them than you would expect. Our own Ainos, however, show a good deal of curiosity when I take my daily swim in the river, and they are probably surprised to find that I am more hairy than many of themselves, though a good deal whiter. I am satisfied that on the whole the Ainos are no more hairy than Caucasians; for I know old schoolmates or others that are still more hairy than I am, though perhaps not so much so as the hairiest of our Ainos; and there are longer beards in America than any of our Ainos' beards. One of our young Aino men, or rather a boy, though about full grown and doing a man's work very ambitiously, has no beard at all, and several of the others have very little to show of that kind. Even the bushy heads of hair would not be noticeable at home if well cut and combed; a friend of mine there used to have just such a head of hair. Two or three of our Ainos, however, are very hairy; one in particular has shaggy epaulets of hair on his shoulders, besides much on his breast, shoulder-blades, arms and legs; but he seems to be quite an exception.

On the morning of the 9th July, we reached the Oshirara river from the West or North-west, and found it some thirty feet wide and perhaps six feet deep. We searched carefully through a bed of pebbles without finding any traces of coal, and so gave it up. In the afternoon we reached the Uriu river on the northerly shore of the Ishcari; and very quickly found on a pebble beach abundance of coal bits even up to the size of a turkey's egg. The river is about a hundred feet wide and three feet deep. It leads towards Rurumoppe, and its coal is probably part of the same field with that of Rurumoppe. The size of the lumps seemed to show that the original bed was not so very far distant. About a mile above that we passed the Aino village called Memu, one of three houses. That day we went about six ri and a half by my reckoning.

The next day (10th July, yesterday), we had no tributary rivers

of importance to search for coal bits; though we reached here and had from time to time to stop to look at rocks of geological interest; for we are now in the midst of the mountains, and on the last part of the way passed numerous rock exposures. We saw enough to convince me almost that the two groups of rocks I called in my report of last Christmas the Toshibets Karafto and the Horumui Karafto are one and the same; although there are some singular geological facts connected with the group. If so, the rocks that I took last year to be underneath the Horumui coal are newer, and perhaps cover it in places. Those rocks were almost the only ones we saw yesterday, but on arriving here towards night we found different and older rocks, which I have not yet examined closely. Among them, however, is at least a little limestone, but I have searched all the way up the Ishcari and on the side streams in vain for any pebbles of limestone. On the Sorachi to be sure was a little limestone near the coal, in balls, and it seemed so heavy as to be fit for iron ore. It was, however, too little in quantity to be worked, except one four-inch seam close under a good coal bed, which could therefore be taken out easily enough. Iron ore indeed is what now seems most lacking for the future manufacturing prosperity of Yesso, and it is hard to believe that so large an island should not have it abundantly in some place.

As for coal, any body not familiar with such calculations would be astonished to find to what large numbers of tons it counts up. Take, for example, the border of the field from the place of last summer's survey (Poronai) to the Sorachi region, and call it in all, say twenty miles (eight leagues or ri) long; and call the *average thickness* of the workable beds altogether *thirty feet*, or ten yards; and the *average height* to which the beds extend above water level, *one hundred and five feet*, with an extent therefore along the slope (of say 45 degrees) of *fifty yards*. Then for every running yard there would be 500 cubic yards, or say tons, of coal above water level, and in a running mile 880,000 tons, and in the twenty miles 17,600,000; and if, as is probable, there be everywhere as at Poronai and at Sorachi two rock saddles at least, so that the coal may be found on both sides of each, making four outcrops of each bed, there would be some *70,000,000 tons of coal above water level*. If this border of the coal field be, as may very well turn out, but one side of a field that is also quite as wide, then the whole of the

boundary would probably have three or four times as much coal above water level, besides what fills up the interior of the field. But so far only the coal above water level has been mentioned; *the coal below water level would be as much more for every hundred feet of depth*, or in a depth of four thousand feet (the limit of workableness, as is supposed), there would be forty times as much more. And yet, although we have already got up among the thousands of millions of tons, we have been estimating the probable contents of but one field, and that not so very large, while the bits of coal in the rivers seem to show that *there is another field*, perhaps as large, *on the West Coast* near Rurumoppe, if not much larger, *reaching northward*. If the Kaitakushi should go to work with might and main at coal mining, with the help of a railroad up the East side of the Ishcari to the Sorachi, with branch roads to the mountains, or with railroads to other points, there is already no danger that it could exhaust its coal resources in centuries. In saying so, *I take the Horumui (Poronai) coal to be continuous with that of the Sorachi*, as is almost certain from *the great resemblance of the section of the rocks at the two places*, in spite of the *thickening of the coal beds on the Sorachi*, and as is not at all improbable from the nearness in a straight line, only some fifteen miles (six ri). The mining need only be limited by the demand for coal; and if good iron ore can be found, the manufacture of iron would consume an indefinite quantity of coal.

Here at Kamoikotan, the rapids and narrow pass which divide the Middle Ishcari from the Upper Waters, there is after all no waterfall, only boiling rapids for a ri or less in length. We are camped on a small bit of flat prairie land, a quarter of a mile above the lower end of the rapids. Yesterday we passed a good deal of open prairie land, and latterly a good deal of light timber: but lower down the river the timber is generally pretty heavy, though not commonly extremely close. Some of our canoes, the best, are towed up the rapids to the Upper Waters, and the rest are sent home again. It is said now that it is not possible to cross from the head-waters of the main stream to the Tokachi, but that you can cross from the head of the Chubets to the Tokachi; so it is still undecided which pass we shall try, or whether we shall not go first up the main stream to the waterfall said to be two thousand feet high (where the impossibility of crossing on account of the steepness begins) and then come back and go across by the Chubets.

12th July, 1874, Sunday.—In the afternoon we moved the camp from a quarter of a mile above the lower end of the Kamoikotan rapids to Harushinai, a small brook at the upper end of the rapids, a distance of a mile (15 chō), and about due east. The tents and baggage were carried by the Ainos on their backs; their own luggage and the rice had already been carried, and the best of the canoes had been towed there against the current. There is no waterfall at Kamoikotan, only very strong rapids, with many rocks in the stream.

The path is nowhere difficult, and the hills nowhere press so closely upon the stream as to make the building of a road, or even of a railroad, very difficult. About half way between the two camps some huge (10? foot) blocks of dark greenish or brownish, almost black *serpentine* are seen, and from being highly polished by the water are much admired by the Ainos, who rub the smooth surface and put their eyes close to it to see the reflection. From the size of the blocks the bed they come from must be at least five feet thick, probably it is much more. The other rocks along the shore are metamorphic talcose and quartzose schists and dark quartzite with a strike of about north and south; and probably belong to the Tshibets Karafto group of rocks. The limestone at the lower end of Kamoikotan rapids has already been mentioned. It is a *blue marble* with white streaks, in appearance a good deal like the Pennsylvania marble, much used in *Philadelphia* for door-steps and other building purposes. The thickness of the bed is at least *seven feet*, and perhaps much more. The marble and the serpentine will both yield valuable handsome materials for ornamental uses, for chimney pieces, table-tops, floors, door-steps, pillars, and the outer walls of buildings. The supply will probably be quite large enough for the demands of Yesso, and may even be sent to Nippon, if there be no nearer and more convenient quarries of like material. Neither the limestone nor the serpentine was found again above Kamoikotan, unless possibly some of the polished blocks in the river a short distance above the rapids were serpentine; all those tried proved to be quartzite. But many small bits of serpentine were found among the pebbles of the Harushinai brook, close above the camp; though none of limestone nor of coal were there.

This morning, before we started, a mystery was solved that had puzzled me for some days. The Ainos had now and then produced

with some kind of pipe very melodious flute-like notes, that seemed by their sweetness to show great musical taste, though there was seldom even an approach to a tune. It turned out that the hollow stem of a tall weed, four or five feet long, was blown through at the small end, and the variation in the notes was produced simply by the natural breaking up of the vibrating column of air into halves, quarters, thirds and the like.

13th July.—We set out this morning with eleven dug-out canoes and five Ainos to most of them, four to the rest; forty-eight Ainos in all. A few Ainos and all the Japanese boatmen had been sent back from Kamoikotan. We had still with us, besides the Japanese coolie interpreter for the Ainos, two Japanese coolies, my cook, my boy, Mr. Akiyama (assistant geologist, quartermaster, entomological collector and sounder of rivers), and the interpreter (acting also as assistant geologist and botanical collector); making with myself fifty-six men in all.

The current was at first still very strong, with many large rocks in the stream, and the strength of the Ainos was well strained. A couple of miles above the Hafushinai camp, we came however to a place where the river was for a short distance free from such rocks, and straight with a uniform current, and we stopped to measure it roughly.

Above the Osarappe the current becomes a little less violent, and we soon came to a fish-weir, the first we had seen since leaving the Toyohira, and the first sign of the Aino settlements of the upper Ishcari. About a mile (15 chô) above the Osarappe we came to the Chubets on our right, a river a hundred feet or so in width, with a discharge of perhaps 550 cubic feet a second. A short distance up it is the "Obanya," which figures so largely on Mastura's map that you would suppose it at least to be a very important trading post. It had been agreed that we should stop near here, even if we arrived early, in order to give our Upper Ishcari Ainos a chance to visit their homes or neighbors. But before camping we went on a mile and a half further up the Ishcari, passing an Aino house on the way, and stopped at a good clean wide beach of sand and pebbles opposite another Aino house; having accomplished according to my sketching $7\frac{3}{4}$ miles (3.1 ri) in the day.

We had come into a beautiful level region with prairies and light woods, and with distant mountains in almost all directions, and with

Ishcaridake towering up before us to the east, with many large snow patches on its top. It was impossible to help exclaiming that this was the Cashmere of Japan. I insisted that if the Mikado should come to Sapporo next year he should by all means be brought to the upper Ishcari; for the trip would be a very easy one, and he would not only be delighted with the scenery and with the wildness of the region, but would enjoy the novelty of a little camp-life, which could easily be made as comfortable and luxurious as could be wished. The greatest Mogul Indian Emperors traveled much with a camp, and sometimes most luxuriously. A river steamer drawing less than five feet could go all the way from Ishcaributo to within fifteen miles (6 ri) of Kamoikotan, and by deepening one place of three feet deep, some one hundred yards long, it could go to within a mile or so of Kamoikotan. The distance is about 110 miles from Ishcaributo, and could easily be run in ten or eleven hours. From the landing place a wagon road of seven or eight miles could be made without trouble into the heart of the little paradise of the Upper Ishcari. His Imperial Highness could therefore sleep on the comfortable river steamer at Ishcari (or on the sea steamer), could start at dawn or a little later, arrive at Kamoikotan by 4 o'clock in the afternoon, and be taken in a comfortable coach by 5 o'clock to a camp either near where we camped or on some of the hills nearer to Kamoikotan. One of the hills was said by the interpreter to resemble a famous mountain in his country, where there was once a great city. The steamer, if allowed to, might make daily trips and bring up any number of followers of the Court as well as supplies of food. If the Emperor were so inclined he could indulge in a little hunting; and he could even set apart the whole of this little valley for his hunting park. But I trust that its plain will rather be covered with grain to be ground at the mills of Kamoikotan, and with flax to be made there into linen. If the Emperor should come once, he would surely wish to come often, as those great Mogul Emperors used to go to Cashmere, a far lengthier journey; and he would perhaps like them build a fine summer palace and baths, and he could ornament them with the marble and serpentine of Kamiokotan.

THE REVISED STATUTES OF THE UNITED STATES.

THE statutes at large of the United States, or the general laws enacted by Congress, are more important to the immediate interests of citizens generally than is ordinarily supposed, and they deserve more attention than they have heretofore received. They are not simply scattered and disconnected fragments of legislation, the force of which is special or local; on the contrary, the several departments of legal authority which they represent have crystallized into what may be described as a sort of common law for each and also for the whole. Thus the powers conferred on Congress by the Constitution to provide for the common defense have resulted in a system of law for the army and navy which may be regarded as being practically unalterable during the existence of the Government; not that special laws and possibly material changes may not at any time be enacted, but the greater portion of the statutes organizing the army and the naval service have not been, and are not likely to be, changed. These laws should be studied as a whole by all connected with their operation or administration, and, indeed, such study should be made the duty of all officers educated for either service.

Again, the foreign relations of the Government and the powers conferred on Congress to legislate for the interests of the nation on its relation to other governments have developed a body of practically fixed laws on that subject, which all citizens should study to some extent, and particularly those who are called to represent the country abroad, or to administer laws of this class at home. The State Department should promote the study of statutory and international law at the same time, and show how well the limits of power and of duty have been defined by the text of the law and by the precedents of administration. I believe that no government of Europe has a policy better defined or more firmly established than ours has been during the brief century of its existence.

Still more extended and important is the system of law on which the revenue and finance administration of the government is based. That which we call the Treasury Department has been enlarged beyond all others since the skeleton of its establishment was erected in the act of September 2, 1789, until it now far surpasses in its scope,

as well as in the magnitude of its transactions, the corresponding administrative or executive department of any foreign government. It is also remarkable to what extent the earliest legislation in relation to commerce, shipping and the revenue from imports has remained unaltered to the present time. The acts of July 20, 1790, in relation to the government and regulation of seamen; that of December 31, 1792, in relation to the registry and recording of ships and vessels; of February 13, 1793, in relation to the coasting trade; of February 25, 1799, in relation to quarantine, and of March 2, 1799, regulating the collection of duties on imports, are comprehensive acts, substantially remaining in force as the basis of all law on those specific subjects. In the Revised Statutes as now enacted there are four hundred and twenty sections to be found copied literally from the above-named acts and others which were enacted from August 7, 1789, to March 2, 1799, twenty-six general acts of that date remaining unrepealed at the date of the revision, December 1, 1873.

Indeed, on this great subject of the revenue and finance administration there is a sort of common law, embodied in half forgotten statutes up to the time of the revision, but which was always and everywhere enforced. Its powers and limitations, as well as the rights and duties of citizens under it, should be as well known as the power of the writ of *habeas corpus*, or the right of trial by jury. Yet it is not understood as it should be, and the gravest errors of omission or of positive infraction are common with those who surely would not violate any ordinary law enacted by State or municipal authority. Congress may at any time change the specific form in which revenues are levied, or the rate of duty to be charged on specific articles, just as the municipal tax rate may be in one year one per cent. and in another two or three per cent.; but the machinery for collection and enforcement, with the relative duties and rights of all the parties to payment and collection remain substantially the same. It is too generally believed that such laws are special and peculiar, and that there is no general system the enforcement of which is indispensable to the national existence.

And after the legislative department has enacted laws and the several executive departments have enforced them, there is the further great system of appeal and review, the judiciary. This system is very ample, resting on a large number of statutes, the wisdom and sufficiency of which have been vindicated through almost a century

of successful administration. Title XIII, of the Revision, "The Judiciary," embraces twenty-one chapters, and five hundred and sixty-three sections, being next to the treasury or revenue system in the extent of legislation represented. Such a body of laws must necessarily be of the highest importance, and worthy of the profound study, at least, of every one aspiring to a knowledge of the law, if not of intelligent citizens generally. Yet the record of judicial administration in the United States Courts is very brief, almost meagre, and the several series of United States reports rare and difficult of access. Now that the acts prescribing the powers and duties of the national judiciary, which heretofore have been scattered through the seventeen volumes of statutes at large, in such manner as to render it impossible for an expert to find the portions remaining in force, have been brought together in the Revision, there may be some effective study of them attempted. No foreign judicial authority, not even the English, from which our system is more nearly derived, will compare with ours in the breadth and scope of its decisions, especially in such as relate to the outlining and limitation of the legislative authority itself under a written constitution.

I have said that generally the subjects and text of national legislation are with us too little known and studied by the most intelligent, and I repeat what the experience of any observing man will justify me in asserting, that an elucidation of the national statutes is needed as well as the Revision which has been fortunately secured. There is a reason for the want of attention heretofore given them that lies deep in the history of the country. It is the strong aversion existing from the earliest times to any centralized power, or any general government in the least degree analogous to the government from which the colonies were forced to separate. The fear that centralized power would be abused, was ingrained in the very hearts of the sturdy men who would have fought half a century, if such time had been necessary, in the effort to free themselves from the restraints of arbitrary power; and even when a national organization became indispensable to the common defense and the general welfare, they yielded to the general government the most meagre skeleton of authority only, retaining in the colony or state everything necessary to the assertion and defense of personal liberty, and the right of taxation. Singular instances of this reluctance to yield to the authority of the general government in doubtful cases were frequent in early history, one of

which may be referred to, in which the legislature of Pennsylvania, as late as 1803, enacted laws in direct conflict with Acts of Congress, and its governor called out the militia to protect persons from the service of process by the United States Marshal.¹

The question of the entire supremacy of United States authority was yielded slowly, and by instalments only, even on the part of most of those who had no part in the great revolt of 1861, and who then found it necessary to give all that they had for its full assertion. In fact, the war alone has made our nationality entire and conclusive, showing us all that this authority is the first and most indispensable condition of our safety, and that questions of restraint and security against the undue exertion by any department of such authority, may safely be left to the correction which public opinion can always find means to enforce. During and since the war, congress has undoubtedly legislated with more freedom than before, and has brought a much greater number of subjects of public interest under its control; or at least, has established a wider form of administration, and has put it into practical operation in each department. In banking and finance, and in the internal revenue system, this enlargement of the field of congressional legislation is conspicuous, while in almost everything else there is more or less of increased contact of citizens with the laws of the whole country. I do not here raise or refer to the question, whether this enlargement is wise or wholly within the written limits of the constitution. I merely observe that such are the facts, and that they appear to be generally accepted as a proper, and indeed inevitable, course of events. And under this course of events there has arisen a necessity to know what the law was or is, in fact, and to be able to properly comply with the requirements which are forced on the citizen's attention much more urgently than was the case before the question whether there was an indissoluble nation or not was put to the severest of human tests.

As a result of this general condition of the legislative authority of Congress, and in consequence of a greater necessity than existed at any previous time, there has been an entire revision and condensation of the United States statutes effected by order of Congress, occupying in its preparation seven years of the time of different sets of Commissioners, and finally enacted into the Revised Statutes now in force. The history of this important work is briefly as follows: Early in the first

¹ Westcott's History of Philadelphia, chap. 452.

session of the Thirty-ninth Congress, 1865-6, Hon Luke P. Poland, then Senator for Vermont, and a member of the judiciary committee of that body, introduced a bill for the Revision and Consolidation of the Statutes of the United States, which was passed by the Senate April 9, 1866, by the House of Representatives soon after, and became a law June 27th following, substantially without amendment from the form originally given it by Judge Poland. This act was so exact in its description of the objects of the revision and prescribed so carefully the manner in which it was finally carried out, that I copy here the official synopsis given in the Congressional record at the time it passed the Senate :

“ It proposes to authorize the President of the United States by and with the advice and consent of the Senate, to appoint three persons, learned in the law, as commissioners to revise, simplify, arrange and consolidate all statutes of the United States, general and permanent in their nature, which shall be in force at the time the commissioners may make the final report of their doings. In performing this duty, the commissioners are to bring together all statutes and parts of statutes which, from similarity of subject, ought to be brought together, omitting redundant or obsolete enactments, and making such alterations as may be necessary to reconcile the contradictions, supply the omissions and amend the imperfections of the original text, and to arrange the same under titles, chapters and sections, or other suitable divisions and subdivisions, with head notes briefly expressive of the matter contained in such divisions ; also with side notes, so drawn as to point to the contents of the text, and with reference to the original text from which each section is compiled, and to the decisions of the Federal Courts, explaining or expounding the same, and also to such decisions of the State courts as they may deem expedient ; and they shall provide by a temporary index or other expedient means for an easy reference to every portion of their report.

“ When the Commissioners have completed the revision and consolidation of the statutes, they are to cause a copy of the same, in print, to be submitted to Congress, that the statutes so revised and consolidated may be re-enacted if Congress shall so decree ; and at the same time they shall also suggest to Congress such contradictions, omissions and imperfections as may appear in the original text, with the mode in which they have reconciled, supplied and amended the same ; and they may also designate such statutes or parts of statutes

as in their judgment ought to be repealed, with their reasons for such repeal."

Other portions of the act provided for printing the results of the revision in parts, in order to submit such parts to the examination of the principal officers of the several executive departments; and also, for the compensation of the members of the Commission, whose term was to be three years.

This singularly clear and comprehensive plan was adhered to with almost literal faithfulness to the end, the term of labor required proving much greater than was expected, but in all other respects the foresight of Judge Poland was clearly shown and abundantly vindicated. The only modification of the original plan and of the form of the work executed in pursuance of the original direction embodied in the text of the act of 1866 was to abandon the idea of amendment of the law itself, and to confine the revision to an exact literal transcript of all the acts and parts remaining in force December 1, 1873, or at the date on which final report of the work of revision should be made to and be accepted by Congress.

Several changes were made in the membership of the Commission. Hon. Caleb Cushing was one of those first appointed, but he soon after declined to serve. Judge James, of Washington, and Judge Johnson, of Ohio, were members of the first commission, remaining in it also to the close of the term of service of the regular commission, May 4, 1873. Mr. J. Vaughn Abbott, a distinguished lawyer of Brooklyn, N. Y., was connected with the commission for three years, and to him was assigned the preparation of the consolidated draft of the Title embracing the Tariff laws. It is a singular fact that the alleged errors in the draft of those laws, and the loudly asserted changes of the law adverse to importers at New York and in favor of manufacturers of Pennsylvania, were all made in the draft prepared by Mr. Abbott. In fact there was no change effected in the law. The most careful analysis of the several Tariff Acts enacted from March 2, 1861, to March 4, 1873, was necessary to know what the law really was; no one of the twelve or fifteen acts relating to duties on imports having specifically or in terms repealed any other. The terms of repeal in each case were always stated to be only of such portions as were inconsistent with the later act; thus leaving to administrative or judicial construction the precise definition as to what was or was not inconsistent. Hundreds of points of

practical construction in these cases were made only by the local officers of customs, never being carried up to the Secretary of the Treasury, or the courts. Others, in large numbers, were decisions ostensibly of the Secretary of the Treasury, but in many of these cases the judicial attention of that officer could not be given to the case, and as a consequence, even the action of the Treasury Department was not uniform. The decisions on cases carried to the courts were also not uniform, the court of last resort being rarely appealed to. Scarcely a single case relating to duties on imports appears in the records of the Supreme Court from 1861 to 1874, although very large sums of revenue were at issue, and were refunded, or otherwise lost to the Treasury during that period, in consequences of changes of construction as to the rate and amount of duties proper to be levied. In view of the vast importance of attaining and adhering to the correct construction of such laws, and of the refunding of many millions of dollars actually made during this period, only a small share of which ever reached the merchant who originally paid the rate claimed to be excessive, it cannot be said that the revision of these statutes came a moment too soon. In fact, but for the final authority established by its aid, either directly or through the courts, the current revenues from imports, would be far below the imperative needs of the government. The law, as it was and should be, had in fact been largely set aside for rates intended to be repealed, and the acts of 1861 and 1862, affixing low and general rates of duty, had been construed to remain in force, although acts of 1864, 1866, 1867, 1870 and 1872 had successively been enacted for the purpose of increasing the rates of duty on the goods in question.

This aspect of the case will be more particularly explained subsequently, allusion being made to it here only for the purpose of showing that the original and substantially the retained form of the Revised Tariff, as now in force, was given it by one of the ablest lawyers and best judicial interpreters of law known in New York. It was not, as a distinguished member of Congress from New York city charged during the last session,¹ the insidious scheming of Pennsylvania protectionists, whose subtlety overreached and defeated all that other sections of the country could do in their own defense. While glad to accept the tribute to our ability as Pennsylvanians thus paid by that member, it is still too much honor. Nothing but

¹See Debates H. Reps., Feb., 19, 1875, and other dates.

simple justice to the law was attempted or attained, and what was absolutely essential to the collection of revenue required by the most necessary public expenditures.

To return to the work of the Commission, it was found that the report as offered to Congress in January, 1873, by the Commission whose duties were to cease May 4, 1873, was not in form possible to be accepted finally, or to be enacted into law directly.

The printed report thus made by the Commissioners in the early part of the session of 1872-3 contained all the explanatory notes, alternative forms for the sections supposed to be of doubtful clearness or completeness, and other matter useful for the information of Congress called for by the terms of the original act; but this very accumulation of undecided questions presented an insuperable obstacle to its acceptance by Congress at the time, or at least to its enactment, and it was therefore ordered, by an act of March 3, 1873, that the Joint Committee on Revision of the Laws should take charge of the draught of the revision of the laws prepared by the Commissioners, so far as the same had been reported or should be reported before the expiration of their term on May 4th following; that they should then discharge the Commissioners and employ some person to re-draft all the statutes, as revised, in form of a bill proper for enactment by Congress, removing all the suggestions of change and the explanatory matter, and retaining the exact text of the unrepealed statutes. Mr. T. J. Durant was so employed, and in the short time elapsing from the close of the term of the Commission his report was prepared. In addition to the free elimination of superfluous matter, he incorporated a large number of amendments to the text of the draft itself. The laws proper constituted a heavy volume, substantially in the form of the final enactment, and the treaties, postal routes and laws for the District of Columbia made each a smaller volume, these last being now bound together, however, as a second large volume.

At this time, as was subsequently shown, the real work of verification of the draft, as being truly the unrepealed statutes of the United States, general and permanent in their nature, began at the hands of responsible parties. The House Committee on revision of the laws, of which Judge Poland was chairman, took the report up with the full determination to it perfect and enact it into law. Having originated the whole work, a member of the Senate in

1866, and followed it as the chief director of all subsequent proceedings in both houses of Congress for seven years, Judge Poland had an interest in consummating what all regarded as a great work which no other member of either branch could claim. With him were associated Judges E. Rockwood Hoar, of Massachusetts; Lawrence, of Ohio; Duell, of New York; Barber, of Wisconsin; Pendleton, of Rhode Island; Moore, of Pennsylvania; Cason, of Indiana; Stephens, of Georgia, and Sayler, of Ohio. These were the active members whose personal attention, with the exception of Mr. Stephens, was given with unusual faithfulness to the work of verification until it was finished and had been enacted in detail by the House. Most of them were judges of some years' experience on the bench, and dividing the work among sub-committees it was proposed to accept nothing as conclusive until the text of each portion was again compared with the original statute from which it was derived. The work of deciding was to a great extent judicial in its character, with the additional difficulty of being required to construe a statute without a case and without argument. Whether the parts of any act selected by the Commissioners and by them reported as being still in force were so in fact, could not safely be taken for granted in any case. No test so severe, both as to familiarity with the ordinary construction of these statutes and as to legal discrimination in regard to the intrinsic incompatibility of acts which had successively overlapped each other for nearly a century, without codification or specific repeal, has at any time been applied to a body acting with the necessary haste of a committee of Congress during an active session. Indeed, under no circumstances and at no time has a like effort been made, since it was soon found that the entire work of the commission would require free amendment and large correction of errors.

The writer had the honor to be called to the assistance of the Committee on Revision in January, 1874, and to be charged with the especial duty of verifying so much of the draft as related to revenue and the revenue laws, the tariff and associated subjects. This portion covered more than three hundred pages of the revision as printed, including in its list of distinctive portions—first Title XXXIII, Duties on Imports; Title XXXIV., Collection of Duties on Imports; Title XLVIII., Regulation of Commerce and Navigation; Title XLIX., Regulation of Vessels in Foreign Commerce; Title LV., Regulation

of Vessels in Domestic Commerce; Title LI., Regulation of Fisheries; Title LII., Regulation of Steam Vessels; and Title LIII., Merchant Seamen. These eight "Titles" embraced thirty-three chapters and one thousand one hundred and ten sections. The first title named is the consolidated tariff acts, embracing all the laws in force December 1, 1873, imposing duties on imports; while the next Title, XXXIV., embraces and defines the entire system of collection of duties, the ports and districts, the officers with their qualifications, pay and duties, and the entire system of procedure. These laws are many of them as old as the foundation of the government, and they are necessarily very voluminous. In these two divisions, covering about two hundred pages of the Statutes as revised, the greatest number of corrections of the original draft of the Commissioners was required, and the relation of the earlier to the later laws was the most difficult to determine. In regard to these I reported three hundred and eighty-six amendments, striking out eighty-nine entire sections, and inserting five entire sections of laws in force not found in the Commissioners' draft. The remaining amendments affected single clauses only, yet many of them were highly important.

In the several titles other than these two the number of changes was comparatively small, but the total number of amendments reported by me and adopted by the committee into the draft finally enacted, was four hundred, of which ninety-seven were entire sections struck out, and six entire sections inserted.

The extreme difficulty of this work, so far as it related to the revenue systems, may be judged when it is stated that most of the fundamental laws on this subject were of very early date, remaining unaltered from the Acts of February 18, 1793, and March 2, 1799. Almost every one of the hundred of subsequent acts refers in terms to former acts as being amended only, not repealed, by any later act. And upon all these, also, the least proportion of judicial interpretation was available as a guide, the greater portion of all requirements and directions having been accepted without any contest arising to elicit the decision of a United States Court. The result was much modification of the Commissioners' draft, many sections retained by them being struck out, as obsolete or inconsistent with later acts, while a few sections dropped by them were restored to their place as laws still in force.

In all this later work the energy and determination of the dis-

tinguished chairman, Judge Poland, were always conspicuous, and it must in justice be said that the final decision as to what was and what was not the law, was his own and not the Commissioners or any one of them. His able associates of the committee shared in responsibility, but none took a leading part. And the House, to which he made report at intervals, as enough of the verification should be completed for its action, in all cases sustained his report. The Senate, still more indisposed to review his work, enacted the revision in a body precisely as it came from the House, and the whole became the law June 23, 1874, without amendment from the report of the Committee on Revision.

The several portions of the general work were reported to the House of Representatives at special sessions held for the purpose on January 29th and January 30th; February, 5th, 12th, 19th and 26th; on March 5th and 19th, and on April 2d the session of that day completing the work on the part of the House, and transmitting the further duty of concurrence or dissent to the Senate. The Senate committee did not, in fact, take up the text of the revision so perfected by Judge Poland's committee at all, but contented itself with reporting the whole body of the bill to the Senate for action. After a brief debate the Senate passed the bill without amendment and it was signed by the President and became a law June 23, 1874.

Very important conditions in regard to these statutes are, however, embodied in Title LXXIV., the Repeal Provisions, and for easy reference as to many points not possible to explain in this paper, the several sections of this title are reproduced here. It will be seen how closely they follow out the original bill or Act of 1866, directing the revision to be made, and being prepared by Judge Poland, as that act was, they fittingly identify the whole of this work as being substantially his. It is a monument of most conspicuous foresight in legislation, and of the highest judicial ability in verifying and establishing the law.

REPEAL PROVISIONS.

SEC. —. The foregoing seventy-three titles embrace the statutes of the United States, general and permanent in their nature, in force on the 1st day of December, 1873, as revised and consolidated by commissioners appointed under an act of Congress, and the same shall be designated and cited as *The Revised Statutes of the United States*.

SEC. —. All acts of Congress passed prior to said 1st day of December, 1873, any portion of which is embraced in any section of said revision, are hereby

repealed, and the section applicable thereto shall be in force in lieu thereof; all parts of such acts not contained in such revision having been repealed or superseded by subsequent acts, or not being general and permanent in their nature: *Provided*, That the incorporation into said revision of any general and permanent provision taken from an act making appropriations, or from an act containing other provisions of a private, local, or temporary character, shall not repeal or in any way affect any appropriation or any provision of a private, local, or temporary character contained in any of said acts, but the same shall remain in force; and all acts of Congress passed prior to said last-named day, no part of which are embraced in said revision, shall not be affected or changed by its enactment.

SEC. —. The repeal of the several acts embraced in said revision shall not affect any act done, or any right accruing or accrued, or any suit or proceeding had or commenced in any civil cause before the said repeal; but all rights and liabilities under said acts shall continue, and may be enforced in the same manner as if said repeal had not been made: nor shall said repeal in any manner affect the right to any office, or change the term or terms thereof.

SEC. —. All offenses committed and all penalties or forfeitures incurred under any statute embraced in said revision prior to said repeal may be prosecuted and punished in the same manner and with the same effect as if said repeal had not been made.

SEC. —. All acts of limitation, whether applicable to civil causes and proceedings or to the prosecution of offenses, or for the recovery of penalties or forfeitures, embraced in said revision and covered by said repeal, shall not be affected thereby; but all suits, proceedings, or prosecutions, whether civil or criminal, for causes arising or acts done or committed prior to said repeal, may be committed and prosecuted within the same time as if said repeal had not been made.

SEC. —. The arrangement and classification of the several sections of the revision have been made for the purpose of a more convenient and orderly arrangement of the same, and therefore no inference or presumption of a legislative construction is to be drawn by reason of the title under which any particular section is placed.

SEC. —. The enactment of the said revision is not to affect or repeal any act of Congress passed since the 1st day of December, 1873, and all acts passed since that date are to have full effect as if passed after the enactment of this revision, and so far as such acts vary from or conflict with any provision contained in said revision, they are to have effect as subsequent statutes, and as repealing any portion of the revision inconsistent therewith.

In reviewing the work of this revision or codification, it is impossible not to accord it a rank quite distinct from, if not higher than any previous work of the kind known to history. It deals exclusively with national powers, with the duties of citizens to the national authority and their rights under that authority, and with all the ex-

ternal relations of the State, or of its people, to foreign states and to foreign peoples. The Code Napoleon is, or was, essentially a body of such laws as we define to be State and municipal laws. The preservation of civil order, the protection of property and the punishment of crimes against these, we have relegated entirely to State law and to municipal authority. It is only where the larger interests of the people of the whole country are involved, that we invoke the power of the United States. And so few are the infractions of general or national law that many, if not most, of our citizens have never seen the posse of a United States Marshal, nor have entered the doors of a United States Court. Yet the laws and the rules of their administration by the general government should be much more generally known and studied than they are. Their recent enlargement and more vigorous administration have merely developed the nation itself, have shown us what it is, and what it must be in any emergency affecting its existence, or even security. In the matter of revenues and expenditures alone, the growth of its duties of administration from the scale of eighty millions yearly for the sum of both, to six hundred millions yearly for the like sum, is the work of a very few years—scarcely twenty-five.² If our present necessities in this respect are more a measure of our misfortunes than of our advancement as compared with 1850 to 1854, we are still called upon to exert a degree of national strength in carrying burdens which is enormously greater than was then shown.

In fact, the nation is developed as no nationality of the Old World is; its executive and administrative energies and capacities have been tried under circumstances more difficult than have been known in any previous case, and they have, without material exception or defect, fully met the demand upon them. The people of this country have undoubtedly made a vast advance upon the standard of twenty-five years since; the national effectiveness, if it may be so described, is as largely in advance of that era, as are the necessities which the present condition of affairs imposes on us; and this advance scarcely raises any suggestion or elicits any feeling on what was once an important political question, namely, the possible danger from the exercise of greater powers by the general govern-

² In 1850 the revenues were \$44,604,718; the expenditures, \$47,669,766. In 1875 the revenues were \$288,000,051, and the expenditures \$294,029,329.

ment, or the centralization of power, as it is sometimes termed. I am not discussing any question of this sort, but only explaining through what necessities we have come to possess a code or body of laws worthy of a great nation, and a system of effective administration corresponding to the public condition of both the statutes and the needs of their use.

THE DECLINE OF NEW ENGLAND.

AN article with this startling heading appeared not long ago in one of the papers or magazines. I forget the name of the writer and anything that was said on the subject. But the title looked ominous and threatening. It sounded like Mr. Venus and Silas Wegg with their ponderous history of "The falling off of the Roosian Empire." It brought before our minds the well-known words of that dearest of college Latin songs—*Integer Vitæ,*

"Quale portentum neque militaris
Daunias latis alit æsculetis,
Nec Jubæ tellus generat, leonum
Arida nutrix."

The way we look at these astounding things in life is to smile at first, to wonder next, and to fear last. Lecky says that the Emperors of Rome brought on the horrors of the Colosseum in this way. "Keep it before the people," was their motto. Familiarity with blood and the gladiatorial death-conflicts in the arena gradually took away from the populace their earlier surprise.

It has been thus with us as a nation all through our first century of existence. The war of 1812, the bank panic of Jackson's time, the war with Mexico, the rise of the irrepressible conflict, the emancipation of the negro race, the inflation issue, the third term and Cæsarism, all these were smiled upon, wondered about and feared in turn in some direct or collateral way. As a people we Americans first smile at the wonderful, then reason about it, and at last begin to believe there is something in it. Dr. Edward Clarke, of Boston, in his paper on "The building of a brain," brings this thought of the failure of our civilization to produce ruggedness very forcibly before us. He wonders where the strengthening element is to come from

to build into the worn-out interstices of our American civilization. After a hundred years of wear and tear, with our peculiar climate and habits of business, where is the great physical fertilizing element to come from?

Now when we come to look into this subject we must divide it off geographically and mathematically. First, we shut out of the question the North Pole and the South Pole, the Equator and Australia, India, South America and China. So then we must set off North America against Europe in point of geography, and the one hundred years of our history against, we will say, twenty-five hundred years of Europe, in point of duration of existence.

When we come to witness the history of civilization in Europe we find two elements there which are denied us in this country, the fact of a *rugged peasantry* and the perpetual presence of *strong and rival races*. The first of these acts as a moral bone-dust to the soil; the second as a choice of grafts in an apple-orchard.

First comes the peasant element—the fine old yeomanry of Scott's stories and Shakespeare's plays. We see the powerful influence of this class in the history of Holland and of France.

Look at Holland. It is a country as Hudibras says, which

"Draws thirty feet of water."

The natives have to fight and dyke for every cubic inch of ground. Wind-mills do the work of steam and running brooks. The people are clean and thrifty and contented. They have been drained off by countless wars and maritime exposures and yet they are the same Dutch to-day that they were when William the Silent led them against the hordes of Alva, or Admiral Van Tromp scoured the ocean as the ideal Flying Dutchman.

Look at France. Ever since the days of the invasion of Julius Cæsar—the couplet of Mother Goose's nursery rhyme has been true. When in French history has it not been true, that

"The King of France with forty thousand men
Marched up a hill and then marched down again."

War, war, war, revolution, insurrection, conscriptions, drafts, reigns of terror, communism. This has been the pattern of French history for the last two hundred years. Ever since Louis the Fourteenth's reign, France has been kept shaven of her bone and sinew, as a modern lawn is kept down and smooth by a garden mower. Yet after two reigns of terror with blood

and guillotine, three empires, two kingdoms, and various republics, after a war which to the youth of France was like the death-plague of the first-born in Egypt, where there was not a house in which there was not one dead, and which to her system of finances was a blood-letting that to many a land would have been destruction,—See! to-day young France arises with debt paid, and the army replenished, and her drowned-out provinces cared for, and the tears for lost Alsace and Lorraine all wiped away—ready again for any real or imagined insult to the deathless glory of France!

We read Victor Hugo and Erckmann-Chatrion in their descriptions of the vigorous peasant-life, and see why it is that with such vitals the recuperative power of France is so marvelously strong to-day.

So it has been with Ireland. Not content with the teeming millions of her own poor soil, she has furnished this country with diggers and hewers, with servants in our kitchens and laborers on our canals and railroads.

England, too, has had its own rugged Saxon graft upon the conquering Norman aristocracy. Deep in the heart of every election borough this aboriginal yeomanry is found. No doubt it is often ignorant and superstitious, but it is strong-hearted and stout-handed, and it "works" into the complex pattern of English social life.

But our country does not possess this yeoman element. It stands to-day free from the weakening element of slavery, but it has a great work before it to outdo its influence and find a healthful substitute for it. Greece, Rome and the Italian Republics of the middle ages, supplied the absence of peasantry with the Helot-class, serf or slave in fact or in name. And they fell each in turn before the rugged, unspoiled tribes of the confederate people.

And then, too, our own republic is not surrounded by strong and combative nationalities. There are no rival races bounding us in on every side, and coming about us, in the words of the Psalmist, as fire among the thorns.

What have we got?

First come the dying-out red men. When we civilize them and make them clean and honest, and turn them into Christians and citizens, then the Indian in them is so far gone that the race as a race must inevitably disappear. What can they do but die?

Next we have the reconstructed negro. The gentlemanly old colonization societies thought the way to dispose of this negro popu-

lation was to cart them away in ship-loads to Liberia. So this was tried until colored gentlemen preferred to whitewash and black boots and die of consumption in the cold United States to being princes and presidents and congressmen on the sunny slopes of the western coast of Africa. Then the Abolitionists and the onward march of history have alike made them veritable men and brethren, and while we all rejoice that slavery is gone forever, we may have our own private speculations as to what will become of the race. It is a tender, emotional race, living rather on the superficial than the real outlook of things. It remains to be seen how the creeping vine will stand when the trellis is taken away from it.

Then, of course, there is the Heathen Chinese. He washes and talks pigeon-English, and is happy in his half-and-half civilization, and like all his fathers and brethren, counts the day of his death and the entombment with his family as the true beginning of all things for him. Therefore he does not enter into our category of strong and rival nationalities. We naturally enough soon get through with him.

After this we come to our neighbors.

There is Colonial Canada, with quite an open door for speculation as to *her* future. There is the Empire of Russia across the straits from Alaska. The pleasures of imagination, scarcely of hope, can find on these isothermal lines, abundant capabilities for exercise. Then there are the quarrelsome republics of South America. When we look at them in these quarrels, the same feeling comes over our minds, in a larger and political way, which the author of *Pilgrim's Progress* had when, on seeing a drunken beggar, he piously exclaimed, "There goes John Bunyan but for the grace of God!" We feel towards them as the Jews felt towards all the other inhabitants of the land. They are only there because Providence has in some way overlooked them; but we are *the* people, and can scarcely afford troubling ourselves very much about these creatures who are to die off, on any hypothesis, before very long.

Mexico, too, has been our Philistia, over which we have triumphed. It is our parade ground and has been to West Point what a colored mission was to a certain divinity school, as described by a negro official of the church—"A place for dem white young students to practice themselves onto."

Such then is the internal condition of our country, and these are

our neighbors. Peasantry we have none: strong rival nationalities around us are unknown. What now do we begin to see?

The decline of New England? Is it possible? It cannot be! But let us look at it a moment.

New England is not the oldest of our settlements in point of time—but because of its early start, and its thoroughness and compactness and formative influence in our national life, the expression “Down East” always seems to imply that that section is in some sense the old country of America and a kind of motherland. Perhaps we do not realize this on the Atlantic seaboard, but if once we cross the Mississippi and hear the constant references to the “East,” we can understand something of its historical character and conservative influence. If “Go West, young man!” is the motto for youth “Come East again” is the longing desire of the matured mind.

The homesick emigrant never looked over the ocean towards his country and fatherland more intently than the cultured man of maturity, when the money is made and the hours for reflection have arrived, craves to go back again to his Eastern home.

There are three causes at work at present which are showing their influence in the threatened decline of New England. These are the Western fever, the ambition to rise, and the defiance of the laws of health.

The Western fever removes, by instalments of whole generations the young men of New England. In many places in the very heart of Massachusetts it is as it was in Eden before the creation of man, when we read “there was not a man to till the ground.” Thirty miles inward from Worcester there are whole acres which sixty years ago sold for \$22 an acre, which to-day can be had for \$11, though railroads and telegraphs skirt the fields, and the fields themselves are excellent farm land. You find old men and hired farm laborers, but no yeomanry indigenous to the soil: it is an element unknown. The young men have gone West, moved by various impelling causes. Portsmouth, Newburyport, Bristol, Stonington, Nantucket, New Bedford, are already like the finished towns of the old world. In religious matters, Maine and New Hampshire and parts of Massachusetts are like mission-fields at the West. To be successfully served with the Gospel, the time is soon coming when the decayed and feeble parish organization in rural districts must yield before the stronger and more helpful method of the missionary circuit. We may build

churches and raise money as we see fit, but the wail which has already commenced clearly indicates the rural parochial decline. Even the literary headship of Boston feels the financial attractions of the great metropolis. Even the *Atlantic Monthly* and *Old and New* fly away, like the coot of Labrador, to the milder shores of Long Island Sound. Of course there are two sides to this subject. What is fun for the boys is death to the frogs. The decline of New England means the marvelous development of the West. It is force not lost to the country at present, but only transferred from one section to another.

The ambition to rise is the second cause we have assigned. Of course this may be all wrong, and some one else on the other side may set us right. But after looking at the subject carefully over the rides and fishing excursions of a vacation in Massachusetts, it seems as if these reasons assigned for the real or imagined decline of New England were not very far astray. Now concerning this second cause, the American ambition to rise, let us say a few words briefly.

"Ambition, powerful source of good and ill," as the poet has termed it, is like a horse, very good or very hurtful, according as it masters or is mastered.

The way the phrenologists have of linking your bumps in groups so as to intensify your good qualities and destroy your bad ones, is a pleasing and suggestive method. For instance, they say, "Great ideality here; this with color and language will lead to poetry of a high order; but with constructiveness it will tend towards mechanical inventions." This of course makes the subject feel happy, as the examiner, metaphorically, shampoos his head, and having paid his money freely, he as freely takes his choice. And thus ambition with self-conceit and general smartness all around is a different sort of thing from ambition ballasted and dove-tailed in with other virtues of the passive order.

I heard this summer of a farmer who was rendered unhappy, not because of any worms or potato-bugs, but because his daughter wasn't a school mistress and his son failed in a political election.

I have in mind now a certain nursery-maid, who, on being asked her religious convictions, said it did n't make much difference to her, she went wherever the minister was "cute" and they had "smart preaching."

It is this hand-over-hand rise into social position and self-made riches, a tendency which the thousands of subscription books about

the great men of America, circulated from door to door by book-agents through the interior of the land, is constantly stimulating, which begets dissatisfaction, and¹ exalts the most pernicious kind of ambition.

Young men *will* become book agents or brakemen on a train before they will do one honest day's work in the field, and American girls will starve over a hard-running sewing machine day and night before they will demean themselves by going out to service.

Of course I know I am writing myself down a croaker on the great unpopular other side; but where will we spin ourselves in the next hundred years if we all climb up into a higher condition of existence, with none but riff-raff and rabble to come after us and live in the warm nests we have left behind?

There is one other cause of this decline, viz: the defiance of the laws of health.

A philosophical farmer who is a business man in Boston ten months of the year and a farmer the other two, a gentleman who raises stock and looks broadly on the problems of humanity as he looks at cause and effect in his colts and heifers, posted me up recently with facts and figures on this important subject. He lives in a proverbially dry and healthful section of Massachusetts, but a place where the country people die off rapidly and regularly with consumption. First the health is broken by dyspepsia, then cold sets in, and consumption follows on the wasted frame. My farmer friend says his horses would die in the same way if they ate correspondingly poor food and slept in the same vitiated atmosphere.

Three or four girls will sleep sometimes in one room together with window down and door shut. The boys of the family do the same down stairs, perhaps. Regular airing of the house there is none. The frying-pan is used at every meal. Pie at breakfast, dough-nuts and pie sent off to the working men or factory hands for dinner, and a greasy, hot fry for supper, is the daily bill of fare. The delights of the French stew, economical, healthful and savory, are utterly unknown, and then comes dyspepsia and decline and consumption.

This is a dismal picture. It may be somewhat overdrawn, but still it becomes us to give it serious attention, and not laugh or frown it down before we look into it.

My friend suggests that if some of the medical faculty would make a *health crusade* through the interior towns of Massachusetts, after

the manner of temperance lecturers or circuit riders in the missionary field, great good would be accomplished. Will not some one prepare cheap health tracts after the plain, terse, vigorous style of Sydney Smith's advice to his parishoners? He once said of a certain little friend: "He has not body enough to cover his mind decently with; his intellect is improperly exposed."

We have revival meetings and political stump orations for the masses. If the mind of New England is not decently covered with body, cannot the medical faculty come to her help?

WM. W. NEWTON.

INDUSTRY AND AGRICULTURE.¹

A FEW months ago we communicated to our readers the substance of an article in the London *Economist*, in which this financial paper ventilates the great question, why, in those countries which produce raw materials, the pressure of the present commercial condition is more felt than in industrial countries. The *Economist* found the solution of this question mainly in the *over-production of countries exporting grain and raw materials*, as well as in the scarcity of capital in such countries. We, on our part, maintained, however, in refutation of these allegations, that the real source of the evil was to be found in the dependence of countries exporting provisions and raw materials upon industrial countries, and in the interruption of the circulation of money and stoppage of all business relations, resulting from the diminished demand of the latter. The *Economist* now adduces, in confirmation of its views, the report of the British Consul General in Odessa, Mr. Stanley, for the year 1874, in which we find the following passage:

"There was (in Southern Russia) a very injudicious over-speculation (in grain), and its consequences could be foreseen, when merchants and speculators, after two poor crops, toward the end of 1873, and at the arrival of the first grain in 1874, bought up what

¹Translated from the *Merkur* of Frankfort, for the PENN MONTHLY. The *Merkur* of the same date contains a translation of Mr. H. C. Carey's *Letter on the Currency*.

ever they could, often with borrowed money, in the hope of a rise in the price. The harvest of 1874 (in Southern Russia) was on the whole an excellent one; and as the crops were good throughout Europe and in America, prices fell rapidly everywhere. The same over-speculation may occur again; but what is more serious, there is every appearance that grain grown in Southern Russia cannot, even in a good year, be brought to this market (Odessa) at a price sufficiently low to bear the cost of transportation to England and France, whenever the harvests in the rest of Europe are generally good; so that not only the speculators, but even the land-owners, have of late years sustained losses. The only classes, besides consumers in general, that profit by good harvests, are the laborers and the emancipated serfs, who are compensated by the higher wages they receive, for what they lose in the price of their own corn. For this dearth of grain, which is so contrary to what might be expected of so fruitful a soil, many causes may be assigned, some of them unavoidable, others such as may be overcome. Among the former are the scantiness of the population and the consequent high price of labor. During the last five years the ordinary scantiness of population has been even increased by the great migration of the country people into the cities, as the period during which the people were compelled to remain on the lands assigned them at the abolition of serfdom, expired in 1870, and they are no longer required to pay a compensation to the land owners for permission to change their residence."

The *Economist* explains this report in the following way:

"There are, in other words, inevitable causes which render the production of grain in Southern Russia at the low prices which can be secured in a year of generally good crops, unprofitable. Such a year as the last was disastrous for Southern Russia, as also for many other agricultural countries. There is, in a good year, no sufficient market for the grain product of the world, while, as has often recently proved the case, even in a bad year, prices do not rise to the excessive rates that they once reached. We may add that these facts prove how utterly groundless the fears which were entertained in the time of the Corn Laws, that the English market would be glutted with foreign and especially with Russian grain. No such glut takes place, even now, when the facilities for commerce are so widely extended in Russia, that the crops can actually be transported. Corn cannot permanently be produced at so low a

price as has been supposed. The corrective of the fall in prices is partly reached also in one of the ways that had been anticipated, viz: in an improvement [?] in the condition of the foreign producers, so that these will no longer work for the lower wages and profits which were to be had before the active demand from abroad, which has now set in. At the same time the gain to England and other countries from a steadily moderate price of wheat, in contrast to the excessive variation in price that there used to be, is beyond all computation, while the injury to our agricultural industry, which some expected, has not taken place."

These remarks of the English paper offer much material for thought, and ought to be well heeded by the agriculturists of those countries which depend upon the export of the products of the soil. There has an over-production of grain taken place, and even in Russia, the export of grain, &c. to England does no longer pay. What then is left for the agriculturist in Southern Russia? There is no industrial population, from which he could expect any market for the surplus of his grain, as the people rather emigrate to improve their condition, and that, of course, to regions of industrial pursuits, since these only open the prospect for a more profitable employment of labor. But this, of necessity, raises the standard of wages in the agricultural districts of South Russia still higher, and thus more and more lessens the possibility of exporting the produced grain to countries where there is a demand for it. Thus the agriculturists of Southern Russia have to face the alternative, either entirely to abandon agriculture altogether sooner or later, or to create a home-market for their grain, which can be done only by establishing home industry. Thus we find the same conditions in South Russia, as in the Baltic provinces, whose condition, according to all probability, will constantly deteriorate, the more they remain dependent upon the export of their agricultural products.

Very strange, to say the least, sounds the remark of the English agent in Odessa, that the inevitable cause of the high price of grain in Southern Russia, is to be found in the scarcity of the population and the subsequent high wages. To a champion of the *laissez aller* and of free trade the scarcity of population may indeed seem inevitable. But he who has an opportunity for more closely observing the commercial policy of Russia, should certainly be somewhat careful in declaring the scarcity of population inevitable. We, on

our part, are convinced that the Russian government, which is fortunately by no means in favor of a *laissez aller* and free trade, will gradually find means to establish what is still wanted to a great extent for that country, to wit: an active industry, and thus also to promote the increase of population.

The *Economist* finds that the development of affairs has not justified the apprehensions entertained at the time of the agitation against the corn laws, that the English market would be glutted with foreign grain. Such an assertion is indeed rather bold in the face of the notorious facts, that since that time one-third of the English soil is no longer used for anything but pasture; that real estate in England is constantly getting into the possession of fewer hands; that the owners of small and middle sized estates there have nearly become extinct, and that the agricultural laborers are in a condition as little fit for human beings, as can be in a half-civilized country. It was of course understood already at the time of the corn tariff, that England's industry would necessarily be benefited by their abolition, and that this would confirm its supremacy as a manufacturing country; but the assertion, that the apprehended damage had not befallen England's agriculture, is uttering but a falsehood.

We do not wish, however, to advocate by these remarks the corn tariff, but rather merely to oppose the tendency of Great Britain to establish an industrial supremacy upon the ruins of home agriculture and upon the dependence of foreign productions of raw materials upon England's demand, and at the expense of all other countries, to become the workshop for the whole world.

WAR LITERATURE.

SHERMAN—THOMAS—MEADE.

HISTORY OF THE CIVIL WAR IN AMERICA. By the Count of Paris. Translated with the approval of the author by L. Tasistro. Edited by Henry Coppeé, LL. D. Vol. 1. Philadelphia: Jos. H. Coates & Co. 1875. 8vo., pp. 640, with six maps.

HISTORY OF THE ARMY OF THE CUMBERLAND, its Organization, Campaigns, and Battles. Written at the request of Major General George H. Thomas, chiefly from his private military journal, and official and other documents furnished by him. By Thomas B. Van Horne, U. S. A. Illustrated with Campaign and Battle Maps. Compiled by Edward Ruger, late Supt. Top. Eng. Office, Hd. Qrs. Dep't. of the Cumberland. 2 vols. and Atlas. Cincinnati: Robert Clarke & Co.

SHERMAN'S HISTORICAL RAID. The Memoirs in the light of the Record. A review based upon compilations from the files of the War Office. H. V. Boynton. Cincinnati: Wilstach, 1875. 8vo. pp. 276.

THE BATTLE OF GETTYSBURG. By Samuel P. Bates. Philadelphia: T. H. Davis & Co. 1875. 8vo., pp. 336.

The publication of General Sherman's Memoirs has excited a very lively interest in the study of our military history. The additions to the literature of our Civil War have increased largely, and the leading new works on the subject are those of which we have, given the titles. Such of them as are controversial and intended to attack Sherman, serve only a temporary purpose, for in spite of the corrections and animadversions of Sherman's statements, the fact remains that his book is one of undoubted value and interest, read by thousands, and likely to be admired for years to come. Of course it is well that actual errors of fact should be pointed out, with a view to reaching the exact truth in future editions; but the sturdy, manly, vigorous, personal impress set upon his opinions by his own forcible style, and by his clear, positive statement of them, makes his summary a matter of historical value and of lasting importance in our literature of the war. In the main that literature is not of a sort to have much value in our own time, or much permanent interest hereafter.

It is therefore with no ordinary pleasure that we find such a hearty welcome given to the Count of Paris's History of our War, by all the leading journals, foreign and American. Some of the most important chapters were published in advance of the book itself, in the *Revue des Deux Mondes*, and many readers were attracted to them by their charm of style, by the simplicity of statements, by the almost colorless impartiality of the historical portions, by the vigorous and earnest tone with which the cause of the North was sustained, while full justice was done the military leaders and the soldiers of the

South. The French edition of the work was in eight volumes, with a very large number of maps, forty or more; these eight volumes will reappear in an English translation in four volumes, each volume giving the full text of two of the French, with only the most important maps reproduced, so that the cost of the edition published in this city by Messrs. Coates & Co., and for them in London by Messrs. Low & Co., will be only Fifteen Dollars, while the Paris publishers ask nearly Fifty Dollars for theirs, and the mechanical execution of the Philadelphia edition is, as usual, better than that of its French original. It is in the highest degree honorable to our publishers to have shown the enterprise to undertake making this book accessible to all English readers, and it is done with such beauty of print and paper that they can go to London and there safely offer it to our British cousins, with their love of luxuries in the way of typography. The Count of Paris has no reason to regret the authorization in favor of Messrs. Coates & Co., and there is little doubt that the reading public will thank them substantially for thus putting his book at our own door.

Of the translating and editing not much can be said in the way of praise. The merits of the French original are sadly lessened by substituting for the author's transparent, vigorous, idiomatic, and at times eloquent style, an English which is marred by Gallicisms, blurred by the constant use of French phrases, as if English furnished no substitutes, and unpleasantly affected by a want of care in allowing blunders, not in themselves very important, to escape into print again, while matters of little or no moment are solemnly adverted to in foot-notes. "*Burton*" instead of "*Buxton*," as the friend of Wilbeorce in anti-slavery agitation; making the coast survey the exclusive work of our topographical engineers; these are not serious mistakes for a French author to make, but it is not creditable for an American editor to pass them by. *Siegel* and *Sigel* are both given; while in addition to retaining the French legal measures, which ought to be translated into English, although the standard for conversion is given in a prefatory note, leagues are also used, which are no longer legal French measures, and are not well known here. These are errors that ought not to be found in a book translated by one and edited by another competent and careful person; but still they are all comparatively slight blemishes, and they are hardly worth mention perhaps, except that they are more easily

pointed out than are the nice distinctions and differences, almost impossible to exemplify by instances, that constitute the blemishes in rendering the good French of the author into the English of the American edition. The use of the present tense in a historical narrative is thoroughly French, but it is not correct or usual in English, although constantly translated in this work, and this is but an instance of the want of care and skill of the kind needed for a successful translation.

It is hard to give the Count of Paris' book the due share of praise its merits deserve without appearing to run into indiscriminate eulogy. It is written in a broad, wide, wise way, with such diversions as bring into proper light the real military resources of the country and their apt use in our great struggle. It is free from vague declamation or loose generalization, but it is far more than a merely detailed account of the strategic and tactical operations of the various armies in the field, for it is military history in the true sense of the term, and rises to the dignity of history by taking into view all the elements that were of importance in the war of the Union. It places before the reader a detailed account of the resources of the two contending sections, and how they were used; the services rendered by the officers of the regular army, who had received their training at West Point, and their experience in actual service, and the means by which large armies were raised and a long war carried on. The traditions of the military service of the armies of the United States are traced back to the old French wars; it was in that school the soldiers of the Revolution received their first instruction, and in the struggle with the mother country, in the war which secured American independence, they afterwards learned their best lesson, that perseverance which enabled them to turn defeat to advantage instead of succumbing to it. The national army of 1861 was organized on the same basis as that of 1776, through the States, and that was the rule sedulously followed in the war of 1812 and in the Mexican war of 1846, each of which left its special influence upon the American army and gave it a chief who organized its forces, in the next succeeding contest.

The narrative of the history shows the current of the military events which culminated in the civil war. Scott, who was the victorious general in Mexico, had earned his laurels in the war of 1812, where he served under the old veterans of the revolutionary war; and

the leaders of the army, led by Washington himself, had learned their lessons in the art of war in the old French and Indian wars. Scott, the representative of all these, the traditions and transmitted lessons of American military war, was the head of the American army when the Rebellion broke out in 1861. He was, perhaps, not more than a nominal chief, but his staff and a large part of the regular army looked up to him as the great soldier of the country; a large number of those who gained distinction on both sides of the civil war had been specially honored by him for their services in Mexico, and for later good work done in the unceasing struggles with the hostile Indians of the border. All of these influences are carefully noted by the Count of Paris, and he traces them in brief but suggestive chapters, points out that Scott's march to the city of Mexico was a prototype of Sherman's march to the sea, each cutting his communication with his original base of supplies, and making his trains large enough to eke out food for the soldiers, who for the first time learned how to live on the country through which they were marching. The Indian wars, too, were a training school, where officers and soldiers learned the habit of responsibility, the facility of taking command, individual reliance, enterprise in undertaking movements and endurance in carrying them on, in spite of frequent failure for want of support or of indifference in case of success. Even the War Department of 1861, with its control of over a million of armed men in 1865, was the same bureau that had been organized in 1800 with one secretary and eight clerks.

The Count of Paris points to slavery as the real cause of the war, denounces it and reproaches its upholders for their unjustifiable demands and for their appeal to arms as a means of perpetuating the peculiar institution of the South. He gives an able sketch of its baneful effects upon the people of the slave States and upon national policy as it was influenced by them, and he furnishes a capital account of the resources of the South, of its means of opening the war with a great appearance of success, of the elements at hand for recruiting their armies, and of the shrewd, bold step by which the Confederate Government made itself the sole master of the men and means of its whole territory, in utter disregard of the State rights which had been so eloquently upheld in its arguments for disunion. The inferiority in numbers of the Confederate forces was not less a source of defeat than the profound ignorance of the poor whites

from whom their armies were recruited and impressed ; the habits and education of the better classes, those who before the war owned their own horses, and enlisting brought them along, gave the first apparent superiority to the Southern cavalry, but even this broke down before the better education, the greater endurance and the larger resources of the North. The partisan bands under Mosby, Morgan and Forrest, three representatives of the several classes of the South, the Virginia gentleman, the Kentucky farmer, the Missouri border ruffian, began and for a long time carried on their operations with a great show of success for their own side, and of injury to that of the North, but while their share in the war was important, it was but an accessory part in regular warfare.

In the chapter on the elections that preceded the outbreak of the war, there is a well summarized view of the political agitation that marked the impending charge.—Buchanan's share of responsibility is briefly stated,—“he had tolerated everything; he had done nothing to crush out the rebellion in its inception, and had left his successor without the means of fulfilling the task entrusted to him; he delivered into his hands the government of a shattered country,” and he had allowed rebellion to be organized with impunity. Lincoln, on the other hand, was determined to defend the Republic and went to work to that end, without allowing himself to be discouraged by the difficulties of the situation, while he fully recognized its gravity and danger. The first duty of the hour was the organization of the Federal army, and the Count of Paris thoroughly appreciates the energy displayed by individual citizens, by local authorities, by State governments and by the National Executive, in utilizing every means to raise a force equal to the emergency by volunteering. The good and bad sides of that sort of enlistment are fairly well put, and while fully recognizing the holy zeal in defence of the Union, the vigorous resistance to the demands of the South, and the proud consciousness of the power, as well as the justice, on the side of the North, it is impossible not to be thankful enough to the Count of Paris for touching lightly on the enormous mischief incidental to and consequent upon the vicious systems of bounties adopted to reward loyal zeal at the outset, and afterwards to quicken the flagging spirits of those whose honest patriotism was almost quenched by the dishonesty and corruption at hand on all sides.

The army was as national in its composition as in its spirit; and the

Count of Paris devotes a good deal of pains to a demonstration of the fact that the soldiers born on American soil were more numerous than if the army had been recruited by a draft bearing equally on all the citizens of the Union, and that the native Americans exceeded in the army the proportion they bore to the whole population. The men attracted by foreign officers and foreign organizations, made an apparent showing quite out of proportion either to their number or real importance, and in spite of the angry denunciations of the day, the fact remains that the American citizens were those who supplied the strength of their own army and made it successful. The want of experience soon yielded to the lessons of actual war, and the chief officers soon learned the art of securing victory; the armies that had straggled on short marches at the outset, in the end traversed half the continent and conquered success through the vigor of their legs, under Sherman; the armies improvised under McClellan in 1862, could carry only ten days' supplies, while the same troops under Grant, in 1864, carried sixteen days' supplies, and this, added to greater endurance and a better knowledge of their own resources, made the later operations successful, where equal conditions were unable to bring about anything like the same result in the days of growth and training. The cavalry arm of the service was at the close of the war in splendid train, and the artillery, from the outset the special advantage of the Union forces, could vie with the best organization of old European armies,—while the engineer and other staff corps were always good.

The growth of the Southern Confederacy and its enormous efforts to support its armies are well described, and there is a certain novelty in the suggestion that the substitution of cereals for cotton, and the raising of cattle, which secured to the South the means of subsistence, facilitated the operations which ended in their defeat. It was owing to the provisions that Sherman found in Georgia that he was able to pass rapidly through that vast region, and make the decisive campaign which would have been impossible in a country destitute of all resources. The early operations of the first stages of the war, and especially the naval combat at Fortress Monroe, the question of the capture of the Trent, the leading battles of the opening period of active hostilities, the capture of Fort Donelson, the campaign in Kentucky and Tennessee, the varying successes at Pea Ridge and Shiloh, and the preparatory movements for the transfer of the Army of the Potomac to the Peninsula, are the main topics of the present

volume. A chapter on "Rivers and Railways," with its account of the influence of the physical geography of the country on the war, is full of novelty of views and of instruction and interest in its study of the conditions which were peculiar to the military operations that marked the war of the rebellion. The fact that our battles were fought in forests and that our armies were moved through heavily wooded countries, where each side was necessarily in ignorance of the other's plans, is shown to have had its serious influence in general and in special instances, as at Shiloh, and it was a characteristic feature to be constantly borne in mind in the study of the war. The importance of the great rivers peculiar to America and the subsidiary value of railroads in a country where artificial or practicable high-roads are unknown, together with the necessity of securing the points of junction as bases of supply, are all carefully stated and proven by repeated instances; this it was that gave significance to the battles at Pittsburgh Landing, to the operations on the line of the railroad from Chattanooga to Atlanta, and to the series of victories that stripped the Confederacy of even the hope of success, when one after the other, the gateways to its territory were captured. In this, the broader and more philosophic spirit, the Count of Paris has furnished a history likely to be of great and lasting value; and even if his narrative of strategic operations and tactical movements be not entirely accurate or free from criticism or even correction, still it is in the main so marked by a candid desire to be truthful that it is likely to outlive the works written by men on the field, and intended to be accurate at the expense of no matter what reputations. The purpose of history is after all far more effectually served by the Count of Paris than it is by the numerous writers who attack each campaign as if it were a problem on a chess-board, fought out on its own squares and quite without influence from or upon other movements. Sherman's Memoirs, with its strong impress of individual force, is the purely personal narrative; while the Count of Paris' history is marked by the absence of any dogmatic opinions of the author's, or any desire to obtrude them. Between them range such other works as those that we now take in hand as the last additions to our war literature.

Next in importance and value as a contribution to the recent war literature, after the Count of Paris' work, is the History of the Army of the Cumberland, by Chaplain Van Horne. The author is especi-

ally fortunate in his subject, for the fame and record of General George H. Thomas and of the army led by him were entrusted by him to the keeping and care of the writer, and his manuscript was subject to the revision and examination of General Thomas and of other competent persons, while General Thomas' Private Military Record was put at his absolute command. The reputation acquired by General Thomas, his great bravery, the personal attraction by which he won the love and admiration, not only of the thousands who served with him, but of thousands of those who knew him only by name; his death soon after the close of the war, and the almost singular and exceptional absence of any sufficient account of his life, and of the services of the troops led by him, and of his own share in the great operations of the war—all of these were well calculated to make Thomas the leading figure of a history of his own especial force. Yet it is not a little characteristic of the man and of the influence exerted on the person specially designated to record his achievements, that the history now given to us under the sanction of his great name is singularly free from criticism of the operations of his predecessors—Anderson, Buell, Rosecrans, Sherman, had been the successive officers assigned to the troublesome battle-field of Kentucky and Tennessee; but no one of them had been able to meet the expectations, sometimes unreasonable enough, of the authorities at Washington, and even Thomas was about to be superseded, when his victory over Hood at Nashville gave him a hold upon the country never to be loosened.

Chaplain Van Horne had the special honor, too, of being selected by Thomas himself, and the account he gives of the Army of the Cumberland may be to that extent looked upon as the official record of its own chiefest and greatest commander. Beginning with an account of the political condition of Kentucky, the work traces the course of events by which that important State was saved to the Union, and thus protected from the disasters that have marked all its sister States which were betrayed into the Southern Confederacy. From the time that Thomas took command at Camp Dick Robinson down to the closing scenes of the war, these volumes will be found a full and complete history of the army over which he threw something of his own special heroism. The first volume traces carefully all the leading incidents of the growth of the great force in the West, under the successive leadership of Anderson, Sherman, Buell, Rosecrans

and Thomas. The share of each is carefully set forth, and the analysis of their several operations on the various lines of the army movements is full and complete. Buell's conduct of the army entrusted to him is fully endorsed; his participation in the battle of Shiloh is described with great minuteness, and the favorable criticism upon his military ability may, therefore, be assumed to be, if not Thomas' own, at least endorsed by him; and that after the war was over, when the angry rivalry that grew out of the rapid changes and frequent interference of the civil authorities at Washington, were, if not forgotten, at least so long passed, that cool and impartial judgment could be finally given.

The Stone River Campaign with the battle of Murfreesboro, the Tullahoma Campaign with the battle of Chickamauga and the siege of Chattanooga, are all discussed in the first volume; the second brings us to the capture of Atlanta, carefully reciting all the grand strategy and tactics used to penetrate the Southern Confederacy, and the minute details of the important operations in East Tennessee. It is no small part of the merit of this work, that it includes in its historical summary, those minor operations which occupied so much of the military and naval strength of the Western forces, with so little apparent result. The concluding chapters treat of the period when Sherman, having gone off on his march to the sea, it was left to Thomas to gather together a heterogeneous army, only a small part of it composed of his old Army of the Cumberland, and with his hasty and improvised force to meet Hood in his desperate inroad northward. The resistance of Hood's advance from the Tennessee river was first effectually made at Franklin, where Schofield did his best to gain time for Thomas' concentration; but the supreme moment was that at Nashville, so impatiently anticipated by Grant and Halleck and the authorities at Washington, that twice orders were issued to relieve Thomas for not assuming the offensive and giving battle, and first Logan and then Grant himself started to take command. Thomas waited until he was ready for attack, and then defeated Hood in a way that put him far beyond reproaches for delay or doubts on the score of his slowness. That his pursuit was not effective as he would have made it if he had had a little longer time for preparation, was due to the pressure put upon him; but his task was so well done that Hood's force was from that time a small obstacle to the final successes with which the Confederacy was made an end of.

The share of the Army of the Cumberland and the work done by all the forces under Thomas, are described with great force and effectiveness, and the recital is completed by following that portion of the Army of the Cumberland which went with Sherman through the heart of the Confederacy. It was under Thomas' orders that Wilson's cavalry raid swept through the South and put a final extinguishment to the last sparks of the dying fire of the rebellion. Not a little fault might be found with the "parts of speech" of Chaplain Van Horne, and his evident want of literary skill, but his anxious desire to be truthful, honest and thorough in his research and his narrative, atones largely for mere faults of style. He has enriched his work by capital maps, and by a brief chapter by Col. Merrill of the engineers, giving a very important addition to our knowledge of the part of the war entrusted to his special arm of the service. He describes the three principal features of the work peculiar to operations in this field—the block-houses built to defend our long lines of railroads, the canvas pontoons used in crossing our broad rivers, and the skillful and ingenious methods by which maps of the country through which the army moved were rapidly furnished to all who needed them for immediate use. Chaplain Van Horne has made a very valuable addition to our literature of the war, and he holds forth the promise of giving us a personal history of General Thomas. Such a biography will undoubtedly be welcome to large numbers readers, not only all who served with Thomas, but that still growing body of readers who treasure up all that illustrates the patriotism and unselfish devotion of those who brought to the cause of the Union zeal and energy and more than mere personal ambition.

In strong contrast to the labors of Chaplain Van Horne, who carefully avoids any unkind mention or unfavorable criticism of those who figure in his pages, is the ambitious effort of General Boynton to shake our belief in the truth and honesty of Sherman's Memoirs. It is not easy, within our limits, to criticise criticism, to take to pieces Boynton's statement of the evidence adduced by him against Sherman, or to show without lengthy analysis why the counter-proofs fail to bear out his case. It must suffice to say that not only in his general charges, but in the parade of records made by Boynton, it is impossible to find any real, vital, satisfactory ground for his sweeping charges of unfairness, or worse, against Sherman. Whatever the faults of style in Sherman's book, or his want of tenderness for those

of his associates or subordinates in command on whom his censure falls, it is impossible not to feel a certain sense of satisfaction in finding his truth confirmed, his honesty approved; and this is done more effectively by Boynton's failure than by any mere praise or by studied laudation of the "great captain" of the hosts that swept through the hollowness of the Confederacy and showed its utter want of strength. A much more satisfactory estimate of the real merit of Sherman's march to the sea is got by careful reading of such a book as the "History of the Army of the Cumberland," than from Boynton or even Sherman's book alone. Instead of dividing the merit of originating the march to the sea with Grant, it is much more important that it should be known that Sherman himself looked on his movement as important politically and morally, rather than as a military operation of great difficulty or importance; the real responsibility of meeting the enemy in force was thrown upon Thomas, and he met it fully by his victory over Hood and the destruction of the rebel forces.

What Boynton has failed to do, although it was his main object—the destruction of a fame which is part of our national glory—has been attempted, perhaps unwittingly, and certainly unsatisfactorily and unsuccessfully, by Mr. S. P. Bates in his "Battle of Gettysburg." So long as this narrative was part of the padding of the "Martial Deeds of Pennsylvania"—a thick volume of biographies with portraits, made to sell and not to read—it did not much matter what its contents were; but now that is reprinted as a history of the battle in which Pennsylvania had and has such a special pride and interest, it is a pity that such sorry stuff should have even a partial recognition as of official origin. Mr. Bates did some clerical work in publishing the History of the Pennsylvania Regiments, and has thus gained a sort of quasi endorsement of his claim of right to speak as one in authority. A mere glance at his book shows that it is only a private venture of his own, and without any sort of merit or value, beyond the recital of the events of the great struggle within our own borders. The sources of information as to the battle of Gettysburg are not yet fully before the public, and a simple reprint of all the official reports by authority would have been a contribution of real value to future historical students and writers. But Mr. Bates contented himself with a rehash of the statements found in the Report of the Committee of Congress on the Conduct of the War, where

evidence of all kinds was taken without any sort of rule or regulation, and he has utterly failed either to weigh its value, to compare the knowledge of those who testified, or to analyze the facts agreed upon and to distinguish them from those statements which were either wild guesses or transparent falsehoods. It must ever be borne in mind that the army of the Potomac was a prize dangling before the eyes of the corps commanders of that force, and the ease and facility with which it was shifted from McDowell to McClellan, from Burnside to Hooker, naturally tempted many others to think that Meade's appointment was in some sort unfair to their claims. It was natural too, perhaps, for them to give vent to their disappointment in harsh criticism of Meade, and no better opportunity could have been furnished than that of the Congressional investigation. It was not until many days had been spent in taking evidence, that Meade was called hastily from his actual duties in the field, to stand upon a defense of his own victory, and to show that he had really won it by his own efforts, and not by advice of men who were, perhaps, honest in believing that they were the real conquerors—a wild delusion not uncommon to ambitious officers. Mr. Bates coolly prints in narrative form the statements of such men as Butterfield, the representative of the worst elements of Hooker's time,—of Sickles, who never forgave Meade's anger at his violation of orders,—of Birney, who believed in Sickles as his immediate commander,—of Pleasanton, who was flatly contradicted by Meade himself,—and on the strength of such evidence, says that Meade knew from Pleasanton a year before that Gettysburg was the site for a battle, although Meade positively stated that he had never heard anything of the kind from any source. Mr. Bates seems to think there is some special merit in laying stress on the "Pipe Creek Order," and takes Butterfield's version of it, although Meade himself gives the real explanation of its purport and meaning. Then Mr. Bates would have us believe that the battle of Gettysburg was a sort of happy-go-lucky affair, in which Meade had no great part, made no plans, gave no orders, and let every man fight as he chose and where he liked, although General Sickles objected to Meade's interference in his efforts to find a new line of battle for himself; and evidently Mr. Bates thinks the affair would have been more brilliant if Meade had sent the rest of his forces out to the line chosen by Sickles, instead of making enormous efforts and great sacrifices to bring Sickles back to

his proper position; and as for the operations on the right, Culp's Hill, according to Mr. Bates, was left to the rebel troops, who came and went at pleasure, and it was only some sort of chance that led a part of Meade's army to hold position there, while on the extreme left Warren, by pure accident, and quite without regard to any general plan of battle, took Round Top under his care and put a small force on it. Indeed, Mr. Bates' only explanation of the conduct of affairs at Gettysburg is that "it seemed as though the heads of the army were turned, and all grown giddy together." Such a perfunctory study of military movements is of no great value, and we may be thankful that it was not extended to other fields:—in simple truth, however, it is a melancholy example of the utter unfitness of the man to appreciate the task and the opportunity entrusted to his keeping; and as for his book, it is only offensive and annoying from his apparent ignorance of the mischief that such book-making does to reputations and to those who hold them dear. The importance of Meade's victory is fully appreciated, and the account of all its details ought to be made full and reliable; but unluckily the pressure of other active duties in the field kept Meade, and those best able to make such an addition to the history of the war, too busy for the task. The simple truth is that Hooker left the Army of the Potomac without a plan, or at least made known none to Meade, who found his army scattered over a wide front, to meet the requirements of the authorities in Washington,—protecting that city and Baltimore and the line of the Susquehanna, and had to get it together and make it ready to defeat Lee. The "Pipe Creek Order" was meant to be a means of concentration, and the very preparation for it enabled Meade to bring his army together upon the field which was chosen by his especial and trusted officers,—by Buford and Reynolds and Hancock. That Gettysburg was the point upon which a great battle was fought, was due to these men; but once chosen, the field was won by the valor of the soldiers, by the energy with which they were commanded, by the technical skill of Hunt in charge of the artillery and Warren as chief of engineers, and above all by the pluck and persistence with which Meade himself managed an army suddenly brought into general action, gave it the advantage of a defensive position, and successfully met and defeated every effort of an able officer like Lee to turn some weak point, and overwhelm and break and drive in the lines of the Union Army and beat it in detail. The

real value of Meade's services was of a kind that could hardly be appreciated without a full and detailed statement of all the tactical operations conducted by his troops: of this Mr. Bates gives nothing, but in its stead, he has a wordy chapter, well pieced out by Mr. Everett's oration, on the cemetery; he devotes a large space to John Burns, he prints a list of the dead in the national burying ground, he no doubt thinks his book a history of the battle,—indeed, it is so pronounced by the critics whose praises are gathered together by the publishers, and we are told on their authority that it is fair, full, and the best and justest,—but we only ask the reader who would otherwise accept this judgment, to turn to the book and read it. Compared by the standard of such works as those of the Count of Paris, which is comprehensive history, or of that on the Army of the Cumberland, where every tactical operation is carefully set forth and minutely followed out to its close, Mr. Bates' book is of small value,—wordy, unfair, without any real critical skill in using the material at hand, and with no evidence of research in securing other information. As for the claim of official authenticity or his title of State Historian, little is gained either to State pride or to the truth of history by any further discussion; and we trust that after a cursory perusal of his work, the authorities that make State Historians will unmake him, and try to find some one who can do justice and honor to the conqueror at Gettysburg, with perfect regard for the services rendered by all who served under and with Meade in the battle which broke the back of the Rebellion and thus saved the Union.

NEW BOOKS.

O'ER MOOR AND FEN. A Novel. By Charlotte Walsingham. Philadelphia: Claxton, Remsen and Haffelfinger, 1876. Pp. 422. Price, \$1.50.

The scene of Charlotte Walsingham's new novel, like that of *Annette*, is laid in this country, in the places and among the people that the author knows best. The story opens in 1869, and its action is condensed into two years. Any detailed account of the plot would be unfair to the writer, who has evidently devoted time and thought to the framework of her story, and who has foreshad-

owed the course of events almost from the outset. There is a unity in this novel which marks a distinct advance upon *Annette*. In the latter each chapter seemed written for the amusement of the reader or the development of character, but without close connection with its neighbors; here the story steadily advances with every page. We still note the faults of hasty writing. Miss Walsingham has grudged the time necessary to mark nice distinctions of character, and her personages are too much given to melodramatic indications of feelings which in real life do not appear so prominently written on the countenance. Revenge, too, which causes all the complications of the plot, is a passion which plays a very small part in our modern world. We dislike people in a thin-blooded way, but seldom devote time and thought to doing our neighbor an injury. But with these deductions the plot is excellently worked out. The action of the story never flags, and its variety is well kept up by the heroine's going abroad and passing through the siege of Paris. The attempt of Mr. Von Decker to escape and its disastrous result are well conceived and probable. Bob and Jack, who supply the comic element, are bright and original. Sometimes they pass the limit which separates comedy from farce; sometimes again there is a touch of natural and tender feeling between them which marks Miss Walsingham's best manner. The scene when Bob comes up with her wounded guest's dinner, and the closing chapter of the book, where they at last became engaged, are both very good. The happy ending is also very much to our taste. Miss Walsingham is in the right path. If her third novel shall exceed *O'er Moor and Fen* as much as the latter exceeds *Annette*, she will attain something better than a local reputation.

THE NATURAL HISTORY OF MAN. By A. Le Quatrefages. "Popular Science Library." D. Appleton & Co.: N. Y.

The study of the human species according to the methods of natural history has always presented many attractions to the educated and reflective mind. Even to the non-scientific reader the researches of Blumenbach, of Pritchard and of Morton, and the writings of Nott and Gliddon and of Bachman on the unity of the human race have been interesting and instructive.

Since that time, however, Geology and the new science of Biology have presented the additional questions of the antiquity and origin of man, and the study of the human species has, therefore, assumed so much importance that a distinct domain has been created for it and we have now the science of Anthropology.

The small volume before us is designed to present this new science in an elementary and popular form to a general audience. As Prof. De Quatrefages, however, in discussing the origin of man, takes decided ground against the Darwinian theory and development as ap-

plied to man, the translator has added, in an appendix, some notes prepared by Prof. Theodore Gill, of the Smithsonian Institution, in which the other side is presented.

The subject is discussed under five heads, viz: The unity of the human species, the antiquity of man, the origin of man, physical characters of the human race, intellectual and moral characters of the human race.

The first point is affirmatively stated and by the application of the known physiological criteria; the laws of *hybridization* as defining species, and the law of *mixed breeding* as defining race; the conclusion reached from other sources is substantiated.

As to the second point he considers the existence of man during the Quaternary period as proved. The discoveries of M. Boucher de Perthes at Abbeville and M. Edward Lartet at Aurignac he thinks are the most conclusive on this point. The famous skull of Engis, in the valley of the Meuse in Belgium, he does not mention.

In his treatment of the third point, however, the much discussed origin of man, he seems to us hardly ingenuous. He correctly states the structural formation of the monkey to be that of a climber and the formation of man to be that of a walker, and reasons from this fundamental difference that the two types could never have approximated. He is inaccurate, however, in saying that the anthropoid apes are exactly like the monkeys in this structural difference.

Prof. Huxley¹ has shown that in the case of the Orang-utan and the Gorilla (both anthropoid apes) the foot of the Orang is far more widely separated in structure from the foot of the Gorilla than the latter is separated from that of man.

The fourth and fifth points are both well presented. The book is well calculated to excite popular interest in this most important branch of study.

¹Man's place in nature, p. 110.

THE BIG BROTHER; a Story of Indian War. By George Cary Eggleston. Illustrated. Octavo. Pp. 182. New York: G. P. Putnam's Sons, 1875.

This is a boy's book, by the author of "The Hoosier Schoolmaster," and various other books for older readers. It serves as a very good illustration of the fact which most writers for children seem to forget, that it is perfectly possible to give the little folks a really entertaining story without descending to sensationalism, or setting before them, as too many of these authors do, pictures of immorality, which are made as attractive as the ability of the writer permits.

There is certainly nothing harmful here; on the contrary, much that is very good and useful. Our only fear is that the desire to instruct and to lead children to think for themselves is too apparent;

in other words, the moral is too thinly veiled; and we are all, not exclusively children, apt to turn from the moral of the story we read with a sort of impatient carelessness.

BRIGADIER FREDERICK: By M. M. Erckmann.—Chatrion. No. 48 Library of Choice Novels. 50 cents. New York: D. Appleton & Co.

The liveliest pictures of a war are taken from the homes of the people, and this story of the forester Brigadier Frederick, is an interesting record of the German occupation of Alsace. The sentiment is one of strong resentment against the victorious Prussians, of whom the too loyal Erckmann-Chatrion find only ignorance and brutality to record. The unhappy dissensions of France, the fatal mistake of underrating the enemy, and providing no defense for the highroads of Alsace, are points dwelt upon with power, and they justify the opinion of old Frederick, that "there are many asses in the world who do not walk in the rear; they march in front and lead."

The authors are not blind to the political mistakes of the Emperor, upon whose cunning and strength France relied to escape the inevitable consequences of treachery and injustice. In a war declared "without reason, without armies, without ammunition, without cannon," the bubble explodes. The sure rewards of evil actions are come upon them, and the French are reminded that they are bearing the results of their own iniquity, while Bismarck and the Germans are dismissed with the threatening reminder that though "strategy, lies, espionage, corruption and violence may succeed for a day, justice is eternal."

These two Lorrainers who have seen their own people dispossessed—lands, houses, grain, cattle and money taken from them—are hardly just to the German idea. The Germans in Alsace are not strangers in a strange land. The war was not all of their seeking, and Alsace had not been two centuries French; even under the Empire the people's tongue was as much German as French; the newspapers were printed in both languages, and it does not seem impossible that she may yet unite with brethren of older ties, to keep a faithful watch on the Rhine.

COMMON SENSE IN THE HOUSEHOLD.—BREAKFAST, LUNCHEON AND TEA. By Marion Harland. 12mo. Pp. 556 and 458. Price \$1.75 each. Messrs. Scribner, Armstrong & Co. New York.

To be able to understand and follow the instructions of Mrs. Harland, it will be necessary for the reader to have had more experience in housekeeping than beginners generally possess, though to a person of *not* extensive knowledge both books will be of more than a

little use, provided she has the means to keep house in the style called for.

One difficulty, in common with nearly all domestic Cookery books, is the direction to measure all dry substances—as flour, sugar, etc.,—instead of weighing, which is the only true and proper means of arriving at the correct quantities. To a housekeeper of ordinary intelligence these books will be welcome—to one who blindly follows instructions, they would involve in many mistakes, and cause considerable trouble.

BOOKS RECEIVED.

O'er Moor and Fen. A Novel. By Charlotte Walsingham. Cloth, 16mo. Pp. 422, price \$1 50. Philadelphia: Messrs. Claxton, Remsen & Haffelfinger.

History of the Civil War in America. By the Compté de Paris. Translated with the approval of the author, by Louis Tasistro. Edited by Henry Coppee LL.D., Vol. I., 8vo., cloth, \$3.50. Philadelphia: Jos. H. Coates & Co.

Dissertations and Discussions: Political, Philosophical and Historical. By John Stuart Mill. Vol. V., 12mo., cloth, \$2.50. New York: Messrs. Henry Holt & Co. [Claxton, Remsen & Haffelfinger.]

Lectures on Art. By H. Taine. Translated by John Durand. Second series. The Philosophy of Art in Italy. The Philosophy of Art in the Netherlands. The Philosophy of Art in Greece. Cloth, 12mo., price \$2.50. New York: Messrs. Henry Holt & Co. [Claxton, Remsen & Haffelfinger.]

Grier-Wally. A Tale of the Tyrol. By Wilhelmine Von Hillern. No. 49, Library of choice Novels. Price 50 cts. New York: Messrs. D. Appleton & Co. [Porter & Coates.]

Lectures delivered in America in 1875. By Charles Kingsley, late Canon of Westminster, etc., etc. Edited by Mrs. Kingsley. 12mo., toned paper cloth, \$1.25., pp. 149. Philadelphia: Jos. H. Coates & Co.

Cartoons. By Margaret J. Preston. 16mo., gilt top, \$1.50. Boston: Messrs. Roberts Brothers. [J. B. Lippincott & Co.]

Roddy's Reality. By Helen Kendrick Johnson. 12mo., pp. 290, price \$1.25. New York: G. P. Putnam's Sons. [Porter & Coates.]

Guido and Lita. A tale of the Riviera. By the Right Hon. Marquis of Lorne, with Illustrations, 90 cents. New York: Messrs. Macmillan & Co.

The Poetical Works of Wm. Blake. Lyrical and Miscellaneous. Edited by Wm. M. Rossetti. The Aldine Edition of British Poets. Boston: Roberts Brothers. [J. B. Lippincott & Co.]

The Children's Treasury of English Song. Selected and arranged with notes. By Francis Turner Palgrave. Cloth, gilt top, price \$1.25. New York: Messrs. Macmillan & Co.

Pretty Miss Bellew. A tale of home life, by Theo. Gift. Leisure Hour series. 16mo., price \$1.25. New York: Messrs. Henry Holt & Co. [Porter & Coates.]

Culture, Behavior, Beauty.—Power, Wealth, Illusions. By Ralph Waldo Emerson.—Evangeline. By Henry Wadsworth Longfellow.—Snow-Bound. By John Greenleaf Whittier. Vest-pocket series. 50 cents each. Boston: J. R. Osgood & Co

Songs of Three Centuries. Edited by John Greenleaf Whittier. 16mo., pp., 352, price \$2.00. Boston: Jas. R. Osgood & Co., 1876. [Porter & Coates.]

Currency and Banking. By Bonamy Price, Professor of Political Economy in the University of Oxford. New York: Messrs. D. Appleton & Co., 1876. [Porter & Coates.]

THE
PENN MONTHLY.

FEBRUARY, 1876.

THE MONTH.

NOTHING of special interest has come to us from England since the last number of this monthly. The journals have been taken up with descriptions of the triumphal progress of the Prince of Wales, who has certainly been "doing" India in royal state. Even so blasé a traveler as "H. R. H." must have felt some emotion at the magnificence of the spectacles which have greeted him. The reception at Bombay, at which were present nearly all the native princes in their barbarous splendor, has been followed by others more remarkable; and what with bull fights, rhinoceros fights, elephant fights and tiger hunts, with balls in the palace at Delhi, and feasts in the caves of Elephanta, the illustrious visitor must be almost worn out with excitement, and, what to him must be peculiarly delightful: "new sensations." The money voted for the expenses of the Prince's share in these things, which is by no means a small one, is not likely to hold out, and more must be contributed from the public purse. Fortunately there is plenty to be had; but the new demand will give rise to new criticisms and complaints on the part of the dissatisfied. Whatever may be said of these things, there seems to be great propriety in the idea of the future King visiting all parts of his empire, and no doubt that he should do it handsomely if at all. A country which has lost nothing by means of "crooked whisky" and similar frauds upon the revenue, pays nothing for

legislation and no salaries to its legislators, and has nothing in the way of public lands to give to infant railways, Credit Mobiliers and the like, can afford to spend somewhat generously, perhaps, in keeping up the pomp of Royalty, which is about all that is left of Royalty nowadays.

THE long-lived Assembly has at length yielded up the ghost, after an ante-mortem speech by the Duke d' Audiffret-Pasquier. Its successors, the two new Chambers, will meet some time in March. It can not be doubted that the remarkable victory of the Left in the choice of Senators—for it was especially remarkable in view of the strength of that party in the Assembly—has done much to better the chances of the Republic. The Senators thus chosen sit for life, and must exercise a great influence upon the future of the country. Men are wont to smile at life offices in a country which has been in the habit of turning everything upside down, at least once a generation, and indeed did it no less than ten times within twenty-five years—but the present government has some promise of stability, and the oldest Senators have good reason to hope to fill their tenure of these new dignities. France will soon be full of excitement over the choice of Deputies to the lower Chamber. The election will be interesting and of great moment, for no opportunity has been suffered to arise by any of the governments which have existed since 1870, in which the feelings of the people generally could be tested. Propagandists of the Republican idea, who believe in a French Republic, will watch the event with anxious eyes.

SPAIN is always in trouble. The last seems to arise from the fact that the Carlists have erected batteries on the Biscayan coast, with which they belabore everything that comes within range. The *London Times*, commenting upon the notice which has been given to mariners to give the Spanish shore a wide berth, speaks with some asperity of the indifference of the Alphonsist government to the troubles which its incapacity to end the civil war is causing innocent parties. The powers, it thinks, are habitually lenient towards Spain, and that she presumes upon their kindness it cannot doubt. The article is interesting as following the announcement

recently published of the action of the Cabinet at Washington. "The United States," says the English journal, "might set a good example, by insisting that Cuba be no longer allowed to become the plague instead of the queen of the Antilles." Anxious as all right-minded men must be to see the miserable civil warfare in that island brought to an end, and Spain herself show what some call a "realizing sense" of her own condition as well as her relations to others, the prudent American may perhaps doubt the wisdom of any course which would invite the European powers to take part in a matter so near home as the Cuban question. A strict adherence to the Monroe doctrine has done us always practical good in every crisis, notably in that which arose upon the establishment of Maximilian's Empire; and this, least of all, seems to be the time for a departure from the safe and beaten pathway.

THE end of the Turkish complications cannot yet be safely predicted. Count Andrassy's note has not been received with the best grace by the Porte; and its recommendations, we are given to understand, have not been deemed admissible. The Turk has in him something of that pride with which the Spaniard always assumes to act, as if to-day Spain were the great power of Europe and ruled the Continent, as she did in the times of the Emperor Charles. His pride is no better founded, nor so well, as that of the Castilian; but he clings to it still, when power and prestige, and land and money, one after another, are slipping from him. He no longer dominates the Levant and keeps the frontiers of Eastern Europe in chronic terror. For the last time he has gathered his turbaned hosts about Vienna and vexed the Adriatic with his ships. The tramp of Russian armies has been heard upon his borders. The Balkan, through whose gates he once went forth to conquer, is no longer even a safe wall of defence; and in spite of the jealousy of Christian powers, he trembles in the heart of Constantinople. Whatever may be the end of this present business, whether Herzegovina gain her liberty or not, the Moslem empire draws to an end, if its days be not yet numbered. The Turk in Europe is an anachronism, and these are critical days.

It is not unlike the common-place, business-like man who controls English foreign affairs to think it well to urge the idea that the

recent purchase of shares of the Suez Canal had no political significance. To him the act no doubt was simply a shrewd business transaction, and had that extent, no more. The present Earl of Derby is honest and sensible, and nothing if not practical. There is no humbug in him. His father would have seen the effect which the announcement that Great Britain had bought the Khedive's shares produced on the public mind, with instant and comprehensive glance. He would have felt quickest of all the patriotic stir in the pulse of England, and whatever the truth might have been, he would hardly have sought an occasion to deny that which men thought must be true because they hoped it was. The whole British Empire has thrilled with patriotic pride to think that England was again about to take her old place in Continental politics, and it would have been as wise to have let men indulge the notion undisturbed. But Lord Derby is practical and utterly without imagination, and he naturally believes that the people ought to regard the transaction as it is and was intended to be—a business investment of a safe and promising kind; and not as they hoped it was and it might have been,—a bold and skillful move upon the dangerous but attractive board of European politics. At the same time we are assured that England supports Austria, with some emphasis; and no doubt, whether her more careful statesmen wish it or not, she will make the influence which belongs to her wealth and prestige felt, if the occasion demand it. England may, and often does, take an interested, narrow view of a political question; and if anything could rob her of her courage, it would be her selfishness. This Eastern question, however, touches her interests nearly, and she will hardly stand by a calm or cold spectator. No watchful student of the forces which are likely to bring about its settlement will leave England out of his ken or calculation.

WELL did the Empress of Germany express the truth when she said that the crime of Alexander, or Thomassen, the Bremerhaven murderer, concerned not one country alone, but humanity. It is hard even in these days of calculating crime and wholesale plunder, to imagine that a man would coldly sit down to plan the annihilation of hundreds of innocent men, women and children, for the sake of a few pieces of silver. Investigation has thus far discovered no accomplices, nor

any evidence of how the purpose of this fiend was to be carried out. The whole is conjecture, built on his dying confession; and the thing will go down a mystery, the truth being buried out of view in his dishonored grave. The man was sphynx-like. Even his wife, they say, knew nothing of his family or history, and not a jot of his design. He is described as handsome, well educated and of pleasant manners. But whence he came is as little known as is whither he has gone. He has bequeathed to us, however, a doubt more dreadful even than the tragedy that made him infamous—a doubt so full of horror that it is painful even to hint at it—an idea that might paralyse commerce and destroy trade and break the nations into bits. The thought that men exist who could smuggle into ocean steamships a machine to blow them to pieces in mid-ocean is new to most of us. If this dreadful thing had not happened at Bremerhaven, we would have deemed the suggestion of such an idea wicked, and a slander on humanity. But a man has tried to do it for the sake of a little gain; and awful crimes have in them terrible suggestiveness. This creature has done what seemed impossible before. The Atlantic rushing headlong on the rocks of Nova Scotia, the *Ville du Havre* foundering at sea, the *Deutschland* thumping into pieces on the English sand-bank, the City of Boston sailing away into eternity, the hidden rock, the treacherous shoal, the impenetrable fog, the raging tempest, winds, waters, fire,—all these things were horrible enough. God has armed the deep with terrors and fenced it about with fear; but this man, so obscure and mysterious, and yet so great in his conception of evil, has been able to add still another peril to the sea.

THE New Year was hailed in this country with noises that would have done honor to an ancient Fourth of July. Everywhere bells were rung, cannons fired and night turned into day. But Philadelphia outdid herself. If infinite clamor and a commotion that drowned the loudest-mouthed bells in the general uproar can be taken as an evidence of patriotism, we are the most patriotic people in this world. Some one might find food for interesting investigation of the relations between noise and love of country, between American Patriotism and the Chinese fire-cracker. If the late Mr. John Adams's often-quoted remark about bells and bonfires be the first great cause, that patriot is much to blame, and would have done

well had he confined his suggestions, as he did at first, to a more solemn, and, to say the least, more rational celebration of national anniversaries. But dreadful to adult ears as is the noise, and dangerous to youthful eyes and fingers as are the fire-works, it must be confessed that there is a chance for something different from harsh criticism in the spectacle of thousands of people, of the three classes into which an acute philosopher divides mankind—men, women and boys,—crowding the streets of a great city at midnight, in the midst of the ringing of bells and illuminations that light up the whole, to greet the coming of the New Year with cheers and rejoicing. To us certainly this new year meant something very different from that which every other has expressed. It comes full of the past, as well of the future. It brings us all that is best of the things that have gone by, as well as a promise of the things that are to come. It is full of hope: a season of sentiment: a year of Jubilee. The Persian verse so often quoted might suggest to us the wisdom of waiting for the end before we spent ourselves in rejoicing; but after all it is far better to hail with bright anticipations the beginning, even if we know well enough they can never be fulfilled.

THE new year suggests the Centennial, the preparations for which are now resounding on every side. The buildings are almost done—so nearly completed, at least, that their readiness in time is now assured. They are everything one could desire. In design attractive, they are better adapted to their purpose than those of any previous exhibition. The practical character of American genius has expressed itself in them unmistakably, and thanks to the hard times, they are economically built. Their situation and surroundings are unsurpassed. They are easy of access by a dozen ways. The Congressmen and others, who were here on the 18th of December, were astonished at what they saw; and well they might be, if the minds of most of them were like that of the intelligent New Yorker who wanted to know but recently, if “the Philadelphians were going to hire buildings,” as he “supposed they would, to hold their exhibition in?” Many of the Commissioners are already here. Sweden, the first to act in the matter and the largest appropriator of money for her share, has been hard at work for some weeks past, her model school-house being two-thirds done: England has built her

cottages in the park, and will presently have them occupied; while the Egyptian display, most of which is the personal loan of the Khedive, has reached New York. The Exhibition, in spite of all the obstacles which it had to overcome, is now certain of success. To be sure, those parts of the country to which its managers naturally looked at first for sympathy and encouragement, still stand aloof. Boston continues cold, New York indifferent and even partly hostile. Chicago's sympathies are generally bounded on the east by the Alleghany mountains, and the Centennial lacks for her the chief element of interest. St. Louis, Cincinnati and New Orleans have hitherto seemed only to know of it that it was to take place in Philadelphia. But the work has steadily gone on. It has demanded courage, patience and more than all a patriotic faith; and presently men will recognize how much has been accomplished, and her sister cities see what Philadelphia has silently done for the national honor, even if they do not thoroughly appreciate it nor thank her, as they doubtless never will.

Had it not been for the debate on the Amnesty Bill which Mr. Randall insisted—doubtless he could not have done otherwise—on bringing forward in advance of the Centennial Bill, the managers would by this time have been sure of the small sum which they still need and hope to get from Government. The United States has acted in this whole business with a narrow parsimony that can hardly be admired, and even now, at the last minute, the most that can be hoped is that they will subscribe the needed amount to the stock instead of giving it, as they ought to do. The debate, however, which has been precipitated by Mr. Randall's measure, and filled so full of feeling by Mr. Blaine, has interrupted the course of the appropriation, and at this writing there may be serious doubts of its passage. The very spirit which it was hoped the Centennial would exorcise has been aroused, and passions that were buried, if not dead, have arisen from the grave. But the fire was there, though the ashes seemed so cold and gray; and in the blaze that has sprung up, the Centennial Bill will be scorched, if not destroyed.

THE question has been generally debated whether Mr. Blaine has done himself good or evil by his recent actions. He has never represented the extremists of his party. Neither by nature nor by

training is he unforgiving. He has done what he has done upon calm reflection, and it is said against advice. Perhaps he felt that he must out-Morton Morton as he had out-Granted Grant; and as he took the wind out of the latter's sails on the school question, he must rob the former of the bloody shirt. No one in Mr. Blaine's place acts upon impulse, and but few, even after reflection, wisely. There is something in the White House fever that stirs the blood and dims the eye, that ties the tongue or wags it unwisely, that makes the man either doubtful and timid or full of a false and dangerous courage. That Jeff Davis was to blame for many things is true, and none hold him more sharply to account than do the Southerners, for they attribute to him many of their troubles. It may be true that he was in a measure responsible for the awful atrocities of Andersonville. In that case we should have tried and punished him, as we did the miserable wretch who paid for his crime upon the gallows. But we have never arraigned him for that crime, and now, ten years after the war, it seems neither magnanimous nor wise to single out a man relegated to obscurity and make a martyr out of him, in spite of fate and of himself. Davis is stronger in the South to-day than he was on Monday last, and through no act of his. And it does seem unpatriotic to open the Centennial year with discussions which must necessarily cause infinite pain and revive the memory of old feuds.

Mr. Blaine of course had a purpose in what he did. And the rare luck which follows at his bidding, never left him in this struggle. His opponents were not wise enough to throw on him the onus of commencing the struggle, and by a calm and temperate behavior disprove his words and show his charges to be false. For a moment the Democratic leaders might have annihilated Mr. Blaine. But, doubtless, he knew them well, and had counted all the risks. When Mr. Hill, of Georgia, got up, Blaine's point was made. It has been made at the expense of good feeling, it is true; it has destroyed the hopes on which we had built great things. It has broken down a pretty fabric, and spoilt a pleasant harmony; it has planted doubt in many a Northern mind, and rage in many a Southern heart; it has driven the Democratic party one step backward in the direction of its past well deserved defeats, and revived in some Republican hearts the old war fervor. Newspapers which spoke of Republicans and Democrats last week talk now of Union men and Reb-

els, and where quiet reigned upon the Potomac on Monday last may be heard to-night the voices of angry men. It was, no doubt, Mr. Blaine's well-laid plan to bring about just this state of things. It was a deliberate move in a complicated and dangerous game. But it has not had, nor could it have under any circumstances, the personal or party effect for which its author did it; for it was the deed of a Politician in the narrow sense. The Politician is short-sighted, because selfishness is always so, and the Politician is its incarnation. The Statesman is far-sighted, for he looks beyond himself. The one acts for himself, the other for the State: this for to-day, that for to-morrow and all time. The Statesman would have seen that in our day the true history of the war can never be written—that all we can do is to gather the material; that Congress is no place in which to make history if we could; that any discussion like this would only strengthen prejudice, revive party feeling and embitter sectional hate, fixing the very stains we had hoped to wash away. He would have set himself to accomplish a task which time and circumstance were making easy for him, and would have sought to bind rather than to sever. The Politician could not see that what the People want is Peace and Unity, and that no transient fury would change a national purpose fixed for good. To him it seemed easy to arouse again the old war spirit which, like the spirit of liberty in Madame Roland's words, has so many crimes committed in its name; and that if it were aroused and awakened, the victory of his party would be won. The truth is that while the Republican party would and ought to win always upon that issue, it is no longer a living issue with this people. It is dead and buried, and cannot be revived to bear infinite blunders on its back. Both sections of the country long for peace—the time invites it—these Centennial anniversaries make anything besides jar on the common heart. What should be thought of one who throttles this new-made friendship and tender confidence for partisan or personal gain? Mr. Blaine has made reputation where he did not need it, and lost it where he needed it most. He has shown himself a true Politician and a ready debater, when what we want of all things is a Statesman. The debate which he has aroused endured four days. The public time has been consumed—sectional spirit aroused—men's passions stirred—and nothing gained by it. Jeff. Davis is not made worse in Northern, but much better in Southern eyes. The Republican party is not strengthened anywhere.

Mr. Blaine is no nearer the White House. Has the whole thing done the country any good?

THE extraordinary revolution, for such it may be called, which has placed Mr. Caven at the head of Common Council, deserves more than a passing notice. The Rings which have so long misgoverned us, have for years been supreme in that body. There, if anywhere, the power of the bad element was greatest. Most of the schemes which defrauded the tax-payer and destroyed the confidence of men in the government, passed at some time through one branch or the other, or found assistance at the members' hands. But the last two years, even in Philadelphia, have not been favorable to modern statesmanship; and recently the individuals who have governed us, true to the adage, began to fall out among themselves. Shrewd advantage was taken of this—and the people have their due—and Mr. Caven is now President of the Common Council. Elected to the body some years ago as a Municipal Reformer against the Republican candidate, though always a good and consistent Republican—and the truer and better for not only being honest, but ready to do something for the sake of virtue—he stood up almost alone in defiance of the Ring. His reward has come sooner than it generally does, and in a different form; and he now rules where he was hardly suffered to serve. He is believed to be capable as well as honest, and is known to have plenty of pluck. In his appointments he has done the best he could with the material in his hands, and has allowed no hesitation to prevent his meting out to his enemies, who are at the same time those of the people, some portion of the punishment which they deserve. From the head they have gone down to the foot; from the top they have fallen to the bottom; and there, where they are harmless, they may be suffered to remain until their seats in Councils can be filled by honest men.

GUDRUN THE TRUSTY.

AS one enters the magnificent gallery of German literature, a marine view in water-colors hangs over against a firm landscape in oils called the Nibelungen Nôt; it is the Song of Guðrun, and these two are the first and perhaps the greatest of all that follow. The Guðrun can not lay claim to any tragedy like that which, muttering through the long and solid stanzas of the Nibelungen, bursts at last in the utter ruin of the royal house of Burgundy-on-the-Rhine. Raids by sea, beleaguering of castles, fierce combats on wild sea-beaches, and a peal of marriage bells at the end—were it not an anachronism to talk of bells in a poem of doubtful Christianity—these elements go to the making of the Guðrun. It is true it has the genuine flavor of the Baltic, a sea which at its brightest wears a peculiar smile, if not exactly cold, yet containing some hint of possible days of evil; nevertheless the Guðrun is essentially a comedy, in which the humor is quiet and self-contained.

Like the Nibelungen, the size of this poem is not calculated to attract hasty readers. Two parts can be readily separated from each other, the second being about Guðrun herself, the former about her father and grandfather! To such absurdity reached the taste of the various poets who had a hand in its lines, and, one may add, of the feudal audiences of those poets about the year 1200. If then we are to venture on the seventeen hundred stanzas composing the Guðrun, it must be to give only the most important verses set apart by the painful commentators of Germany as the true kernel of the story.

Among these commentators the majority are of the patriotic type, who are unwilling to take from Germany the smallest credit in the line of literature; not so, however, the Scandinavians. They point out the prototype of the first half of the song of Guðrun in the Edda, and plainly hint the probability of the whole of it being theirs; but to this the learned Germans will not consent. What we do know is that only one manuscript exists, and its dialect places the writing of the song, as we now have it, in southeastern Germany. To us it is of minor importance whether the various myths of Germany arose in its own bosom and were exported to Norway, or whether Norway engendered them; we may take a middle course, and allow the same traditions to all branches of the Teutonic race.

Where we will strike the current of the poem, at the 204th stanza, the fair Gudrun's grandfather and father have been accounted for with various marvelous particulars, such as the grandfather's abduction by a griffin and his life in a cave. Her father is king at Hegelingen, probably a small castle or town; the locality is not far from the present Hamburg, and at that time occupied by Danes. Denmark bears its ancient name of Ortland, and of this, as well as Frisia, he is the overlord; before his river mouth lies the North Sea, and the Danes who have settled in Scotland, Wales and Ireland, as well as those in France, under the name of Normans, are his acquaintances, if not always his friends. It may seem hard that at the 204th stanza Gudrun is not yet born, yet so it is. Hetel is looking about him for a wife and mother of heroes, and naturally insists upon the one of all others he cannot have—Hildé, daughter of Hagen, a Danish king of Ireland. Unfortunately all messengers bearing amorous proposals to the court of the fierce fighter, Hagen, are "cut and slashed," and all suitors are insulted, so Hetel resolves to use strategy to get possession of proud Hagen's jewel.

264. Then made at home King Hetel signal of his will.
 Very little lazy were carpenters. With skill
 Wrought they on his vessels, and with both art and might
 The walls were to the uprights well bound with silver bright.
265. Standfast and right excellent then were mast-trees made;
 The oars were bound around about with the gold so red,
 As though with flames they burnéd, the monarch's riches
 showing,
 When they were to venture, right praiseworthy was their going.
- * * * * *
285. Then this is in their favor that a northwind fills
 With a breeze their mainsails to the heroes' wills.
 The shipping stood on evenly, as they left the port
 They who knew their sea-work, by them the young hands then
 were taught.

If the metre of the Gudrun is rough, it has the merit of being translatable with closeness; while in the translation itself any smoothing down would not only take from the flavor, but put the reader at a disadvantage as compared to a German reading this early dialect of his. In a like stanza the whole poem is written. Hetel's envoys

journey to Ireland by a sea-passage, which is long, but, as the poet anxiously and with strange violence insists, *not a thousand miles*. Those who so relate "lie crazily; it is not in accordance with the story." Here we have a stickler for geographical accuracy with a vengeance. Ballyghan, or Balian, the Irish town of a Danish king, named Hagen, is reached; anchors are "bound to the bottom," huckster-booths are raised on the shore, and the judge or shore-guard of Balian is informed that they are rich merchants.

The king himself is gracious, having been well softened by costly presents, and every one is anxious to see the magnificent strangers, whose splendor is so great that another story has to be invented. Their spokesman, Waté, a mighty grizzled warrior, tells Hagen that they really have fled their country on account of a blood-feud; Fruoté stands near to corroborate his story with his courtly presence, and Horand, the sweetest singer of the North, the third of the wily envoys, adds the grace of his manner to the conference. Hagen visits the beautiful ships, without suspicion of the cargo of lusty fighters contained by their black sides. Hildé, his daughter, has her curiosity aroused, and persuades him to invite the exiled vassals to the court. A verse here gives an early substitute or an antecedent to hemp in capital punishment.

296. He spake then: "My peace-royal and conduct by the way,
 These I offer freely. He shall surely pay
 With the *twisted willow* who frets the lordly stranger,
 Be therefore nowise anxious: in my land they are free from
 danger."

Hilde has her way, and even submits to the necessary formality of kissing Waté, whose beard and fierce face are accurately described. But his terrible look, like that of the Hagen of the Nibelungen Lied, can not prevent the princess and her mother making sly sport of the old warrior; both women have the same name.

343. Vrou Hilde and her daughter, in a gamesome mood,
 Began to question Waté: "Did he find it good
 Still with lovely women to lounge upon a seat,
 Or would he not far sooner his foes in savage storming meet?"
344. Then spoke the ancient Waté: "For me one thing is meet:
 Near to lovely women however soft my seat,
 One thing would I far rather, with many a headstrong Knight,
 Now if so it might happen, in savage stormings I would fight."

At this the young queen laughs merrily, but Waté is a folk-hero who may be joked with by women; when it comes to men he is not behindhand with a peculiar grim humor of his own. This is an essential trait in the folk-hero of Germanic legend; he is gifted with a wiliness which comes down from the heathen giants of still earlier ages. Waté pretends that sword-play is to him an unknown skill.

354. As custom is in Ireland, often was begun
Many a kind of joyousness. Thereby Waté won
The monarch for a friend. For woman's loveliness,
Sir Horand, he of Daneland, was often full of gamesome-
ness.

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362. Then spake the tameless Hagen: "Give me the sword in hand,
I'd like to kill the time here with him from Stürmenland,
As I might give him lesson of my four cuts, in truth,
The hero well may thank me." This Waté promised in good
sooth.

363. The guest addressed the monarch: "May I have grace of thee,
Oh Hagen, thou great fighter, that thou wilt honor me?
If thou should'st strike me wounds here, 'fore women I were
shamed:"—
Waté knew the sword play so well none in the world had
dreamed.

364. Hagen, with great hardship, withstood th' unskillful man,
So that like a wetted brand he to reek began,
The master 'fore the pupil. Yea, he was strong enough!
The good host plied his guest, too, with strokes right terrible
and rough.

But this is all by-play to the real work, performing through the intrigues of courtly Horand. He sings so sweetly that birds cease their lays to hear him; and Hildé, who listens from her high tower, is so entranced that she persuades her chamberlain to bring him in secret to her apartments, to which dangerous step the bold Sir Horand is glad to accede. The effect of his song on nature is given in a sort of formula or incantation. Birds having had mention in the preceding verse, we are told:

389. The beasts within the forest left their pastures all;
The serpents, that do ever in the grasses crawl—
The fishes that do ever through the waters press—
They left their occupation. Well could he use his skillfulness.

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397. Then chanted he a measure ; it was of Amilé ;
 No Christian man has ever learnt that song to say
 Before or since, save hearing the same on savage sea ;
 Therewith them served Sir Horand, the sworder quick and
 free.

Various explanations are given to the wondrous measure of Amilé, according as one has fancied it to be the name of a person in a lost song or that of an Arabian town. It does not seem to have been noticed that Ambla, or, as it is now called, Ameland, an island north of Holland, lies directly on the path between Hegelingen and Ireland, and may be referred to as still heathen and in the "savage sea" (*wilde vluot*). The poet who introduced the expression was probably a mainlander, who wished to place the chant on some remote island, whose name his hearers had probably heard before. One commentator suggests that Amilé is a corruption of Amleth, and alludes to the other name for the maelstrom: Amleth's Mill. But whatever its derivation, the effect on Hildé was convincing, for she allows herself to be approached and listens to the praises of Hetel, king of distant Hegelingen. "Twelve," says the unblushing Horand, "are finer singers than I at Hetel's court, but Hetel himself surpasses us all!"

The heroes ask their leave, but urge the court to inspect their beautiful ships, which the entire castle does with great pomp. But suddenly Hildé is separated from her parents and ascends one, while Hagen inspects another ship. Then signal is made, anchors are lifted, and the vessels begin to move. The king springs overboard and collects his warriors. His wrath is frightful. He calls for his enormous spear, while the strand quickly glistens with his men-at-arms, but alas! his ships are full of holes, and his army is powerless! The bold robbers disappear below the horizon.

Among a crowd of silk-clad maidens Hetel finds his bride, when he advances to meet her near Hegelingen.

483. With manners very comely a greeting then began
 Of her who after bore crown for that most glorious man.
 Around the maid, love-waking, (now right well may he list!)
 His arms he cast about her, the lovely form he sweetly kissed.

But their joys are brief, for by evening Hagen, who has mended his boats, is upon them. Horand sees sails with crosses on them, such as pilgrims use, and on the crosses pictures are painted. The

peaceful sign does not deceive any one ; the maidens already begin lamenting inevitable slaughter of heroes, and the run-away princess is put on a ship with a bodyguard, while the men of Hegelingen make ready. King Hagen calls on his Irish Danes:

503. In mighty anger Hagen bounded overboard,
 Landwards waded through the flood that selected sword.
 Then fell upon the hero, like rapid flakes of snow,
 The swiftly hurtling arrows. The Hegelingen soldiers bare
 them so.

As the furious battle proceeds, Hagen's men have the best of it ; he himself wounds the too aspiring bridegroom, and even hurts old Waté himself, but that folk-hero must be allowed revenge, or listeners would murmur:

519. With fury Waté paid back the bitter flesh wound
 Wherethrough were tears of bright blood there upon him
 found.
 He strikes the tameless Hagen until from helmet flies
 Old Waté's sword resounding. Then daylight sinks from
 Hagen's eyes.

Here the daughter interferes to save her father: a truce is called. Hagen finds Hilde well married and wearing the crown, not a mere private wife after the Danish fashion, and so departs for Ireland well content. Like many another father, he seems to have made himself very disagreeable until his daughter is disposed of, and then discovered that her marriage is a great relief.

Now at last we get to Gudrun, for the beautiful Hilde robbed from Ireland is her mother; it is not surprising, then, that the trick should be hereditary in the family. Hetel is another Hagen, for he treats suitors of that marvelous beauty, Gudrun, with all the contempt his father-in-law once treated him. Among others, Hartmut of Normandy sends ambassadors "by land and sea," whereby Holland is probably meant, and gets the most disgraceful rebuff. "How," says Vrou Hildé, formerly the runaway bride, now a mighty and staid queen, full of the law of precedence and feudal etiquette, "How may she have his bed when his father held (*lech*) a hundred and three castles under my own father in Garadin (Cardigan, Wales)?" Who knows but that Hetel might have taken the bold young Norman, had it not been for this feminine memory? But then we should have no Song of Gudrun!

Beside a Dane from the Mediterranean, a nearer suitor was Herwic, who, though poor, did not waste time, but being insulted, raised an army and proceeded to harry the land of his love. As he succeeded in putting Hetel to great straits, it is natural a northern princess should feel an outgoing of the heart for such fiery energy.

644. Often struck from helmets fire-heated wind
Herwic the lordly. Now this was borne in mind
By Gudrun the radiant; eye-pasture good she had:
The hero was right valiant: thereat she was both sorrowful
and glad.

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649. Thus Gudrun, the lovely, saw and heard the brawl—
Now Luck is often rounded even as a ball:
Since the woman could not part them otherwise,
She willed that foe and father should hearken her emprise.

In other words, she is willing and her father is ready to see the justice of taking Herwic for a son-in-law. But the news of an attack upon Herwic's land by the Oriental Dane puts an end to the festivities beginning, and lover and relations hasten to repel the invader. Now it is that Hartmut's spies inform him in Normandy that the coast is clear. If Vrou Hildé disdains his suit, his mother, Gerlint, is not backward in stirring up Hartmut to revenge the affront, and he arrives before Gudrun's castle with a summons to come forth and wed him. When Gudrun informs him of her engagement, he takes and sacks the castle, and bears away for Normandy with great booty for his men, and for himself the wondrous, lovely Gudrun.

The consternation in the allied camp is great. Hetel and Waté, with son-in-law Herwic, have driven the marauder into a castle, which they cannot leave untaken to pursue Hartmut. Waté alone keeps his head. Peace and alliance is instantly concluded with "Siegfried of Alzabé" and his Icarian followers, and Waté proposes to seize the ships of certain pilgrims to the Holy Land for the emergency. In spite of the pilgrims' indignation this is done, and the strongest are compelled to serve in the expedition. "A bread," that is, a loaf, expresses, on account of its cheapness, what we should render by a "button."

843. Loud the pilgrims curséd, as well there was a need;
Whatever word they gave him, he recked it not a bread—
Waté, the much-daring, wrought this without a smile,
That boats they must allow him and vessels for the while.

844. Hetel rested never until upon the sea
 They came with all their crosses. From their band took he
 Five hundred men and over, the best that there were found,
 Of whom right few were brought back to Hegelingen sound.

This stanza foretells that all Waté's promptness is to be unavailing. For the Normans have reached a point on the Netherland coast, where, at the Wülpensand, or "place where she-wolves breed," they are enjoying a rest in the society of their beautiful captives. They are thus occupied when the "cruisers" are sighted, above whose bulwarks helmets shine in such martial order that it is plain the kind of pilgrims they bear portend no good. All is commotion on shore. The standards of old Ludewic and young Hartmut, his son, are borne forward to the water's edge as the Hegelingen men spring into the shallows and push to land, under cover of a cloud of javelins from the ships, "like snow from the Alps when the winds blow."

Long and fierce is the combat, and Hetel dying at the hand of old Ludewic only enrages the Danes the more; but at the savage renewal of the fight in the gathering darkness a friend is slain. "Murder is being committed here," cries Herwic, and the battle stops. The Hegelingen men encamp, weary and sad, but while they sleep the battered Normens steal away in such of their ships as they have men to equip, and the morning finds their fires desolate. The Danes have been so severely handled, and the enemy has got such a start, that Fruote persuades them to give over a hopeless pursuit.

Dejectedly they set out for home, to announce to Hildé the death of her king and the loss of her child. They must wait until the youth of the land are grown to men before they can hope to wrest their princess from the captivity in Normandie. Meanwhile the remnant of the Norman band have reached the French coast with Gudrun. On the way, being urged by the father, she refuses to marry Hartmut, and quickly learns what is in store for obstinacy. "Not gentle was Ludewic's care for lovely women" as the fair captive and Hartmut found; for at her refusal the old man seizes her by her *falwe zophe*, or yellow plaits of hair, and casts her into the sea, from which Hartmut rescues her. But her treatment by old Gerlint, the fierce mother, may be given without comment.

995. Then unto hero Hartmut wicked Gerlint said,
 "'Tis thus by wiser persons dullards should be led.
 An you allow me, Hartmut, to guide her at my pleasure,
 I trust to so arrange it, her pride shall find a measure."

996. Then answer made the she-fiend the lovely maiden to,
 "Since weal thou wilt not choose thee, thou must arrive at woe,
 Now look well round about thee for what thy fate may turn,
 For thou must heat my chambers and keep the fire aburn.

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1019. Her way where she was seated the old queen then did take.
 To Gudrun, maid of Hegeling, then she quickly spake,
 "And wilt thou not consider, my prettiest of wenches,
 So must thou with thine own hair wipe dust from footstools
 and from benches."

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1064. So spake the wicked Gerlint: "Thou workest many a woe,
 However hard the winter, thou shalt out in the snow
 To wash with toil my garments well in the bitter wind,
 Until within the warm room you often long yourself to find."

So there was no help for Gudrun, save in the alternative, always being forced upon her, of marrying Hartmut, a prince of great renown, and to all evidence noble in character. Such trifles as carrying off the maid he loved and sacking any castle he could enter, were entirely within the rules of a bold young Norseman. It was not that which made Gudrun refuse the crown of Normandy; it was her promise to Herwic which made her prefer all the ignominies invented every day afresh by the tireless spite of Hartmut's dam. Did she come late from drudgery in the harsh winter air? Gerlint was ready to embitter her hours of rest with curses and blows. Did Hartmut return from one of his constant expeditions for booty or glory? Gudrun must wash the clothes of all his men-at-arms. All her maids save Hildeburc are taken from her, and for the space of seven years she lives in misery as the lowest slave of the castle.

Meantime Waté, the great vassal of Hegelingen, has been watching the growth of his young men, and Queen Hildé has been building. Forty long ships bear forth Waté, Herwic the betrothed, Ortwin, Gudrun's brother, and Horand, the sweet singer, leaders of the new levies and the veterans who survived that fatal day on the Wülpensand when King Hetel was slain. Adventures fall thick on them as soon as they reach the open sea; one is a danger we have met with in the Arabian Nights. What indeed more natural than that men should invest with fabulous interest a phenomenon so mysterious as the movement of the magnetic needle? Seeing the strange bit

of iron quivering with a hidden life or purpose, why should there not be a great magnetic mountain in the north, and how prevent every nail of the ship which has ventured too near from springing out and leaving the mariner struggling with the sea?

1126. At Givers 'fore the mountain Hildé's army lay:
 However good their anchors, to the murky sea
 The mountains of the magnet thence them quick had hent:
 Their sturdy mast-trees o'er them stood all bent.

Winds from the South have carried them to Givers, a name impossible to place, unless it be a corruption of the Arabic Gebel, mountain, which adheres to several most important landmarks, of which Gibraltar will be the first to suggest itself. *Ætna* was also called Monte Gibello, but as the Hegelingen men went northwards with the storm, it could hardly be either of these. The "vinstermer," or murky sea, means either a fog belt, or the long night of Polar regions, while Givers may apply to Hecla, because of its evident likeness to *Ætna*, the Monte Gibello. In the following stanzas Waté's grim humor may have played about the similar names of Hecla and Gibraltar, if both went then by the name of Givers; although it is always possible the poet was serious, and honestly confounded the three illustrious mountains. Westward of Gibraltar the ancients placed the charming fables of Atlantis; and in this connection it is well to remember that they have been burlesqued by the Germans in their account of the *Schlaraffenland*, where Rhine wine runs in streams, and roast pig walks about with carving-knife ready in its back. Waté's account seems to stand halfway between the noble fable and the caricature, as the song of Gudrun between the classics and modern fairy-tales. This is what Waté says:

1128. "Now since that hither sailing our queen's force lieth here,
 And we so far have sailed on the murky mere;
 From childhood always heard I this legend of the sea,
 At Givers in the mountains there lies a kingdom mightily.
1129. "There live the people nobly, so wealthy is their land;
 Where the waters trickle, silver is the sand,
 Therewith they build the castles, and what they have for
 stone
 Is all of gold—the best gold. Yea, is their poorness surely
 none."

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1134. The mist-cloud drew up higher, as it God decreed,
Then heaved them up the billows. Now they came from
need.
Through the mighty murk they looked upon the sun,
Then up arose a west wind. Their labor now was fully done.

But supposing no confusion of poet, or grim humor of Waté, who proposed, before the west wind came, to land and fill the ships with gold and jewels, why then we must look for an Atlantis fabled in the north, and there we find—what else but those happy isles that men are searching for to this day, the radiant semi-tropical land beyond a frozen barrier in the Open Polar Sea? Has not the fable so wrought upon a practical citizen of these United States, and in this century, that he produced a full-blown theory of the earth to account for it, maintaining that this globe is like an apple with the core removed, and that when we can once sail northward over the ice-bound rim, down into the convergent interior, we shall find a region of unchanging climate? So there is yet an Atlantis whose Columbus is unborn.

Roughly treated by the ocean, the Hegelingens nevertheless get sheltered at last under an island near Hartmut's castle in Normandie, and Herwic and Ortwin set out in a skiff to reconnoitre. The day before, while Gudrun and Hildeburc are washing linen on the harsh sea-beach, a bird, or angel, as two different stanzas put it, comforts Gudrun with the assurance of the safety and presence on the bod-dice (*mieder*) of the ocean of those she loves. This bird is one of the wise or swan-women of the Nibelungen—the maidens who turn to swans in the Arabian nights, the talking hamsa-birds in the Mahabharata.

1170. Prone upon the harsh stones fell Gudrun the fair,
And to God in shape of cross she did make a prayer.
She spake to Hildeburgé. "Oh, well the while that ever
Our God hath routh upon us: from woe we now shall 'scape
forever."

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1193. From Gerlint then they parted. Wet aside they laid
The clothing they were wearing. No kindness them was
paid.
Alas, no trusty vassals had now King Hetel's daughter,
However she might miss them. Her food was black bread
and spring water.

On the following day, that of the arrival of the Hegelingen, a heavy snow had fallen. The prisoners enter Gerlint's room to ask remission of their task on the beach, but from Ludewic's side the shrewish queen bids them out on the shore to wash the clothes. They set out in tears. As they get to work, two strange knights land from a small boat, and they fly in a panic.

1212. Then sprang they from their vessel and after called fast
 "Ye lovely washerwomen, what means your sudden haste?
 We are but foreign people, that see ye, an ye choose;
 But should you hasten from us, the costly garments you might
 lose."

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1216. They came in shifts enclathed. Very wet were they;
 Better lived these noble ladies ere this day;
 Their long hair with the March wind was tossing to and fro:
 Woe was the noble maidens, what though 't were either rain
 or snow.

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1219. The sea was floated over with iceblocks everywhere,
 Which were in pieces broken. Bitter was their care;
 Through their shifts as white as ever is the snow
 Outshone their lovely bodies, great doubt of mind did work
 them woe.

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1232. Then shudders in the sharp cold the beauteous maiden fair;
 And spoke the princely Herwic: "Oh would it might appear
 No shame to you, most noble, if you our mantles bore!
 Oh, love-awaking maidens upon this wintry shore!"

1233. Then spake queen Hildé's daughter: "God let you blessed be
 Because of both your mantles! On this frame of me
 Clothes of man shall never by any eye be seen!"
 (Often, had it been known, they might have sadder been.)

The princes now fall to questioning about the Normans, and especially one Gudrun, a captive princess. She, says the washerwoman, is dead! When she sees their emotion she acknowledges that she was one of the captives herself, and finally alludes to Herwic as her betrothed.

1247. Then spake the high-born knightman: "Now gaze at this my
 hand—
 Till you perceive the gold ring (as I Herwic am named)
 Wherewith I was betrothed to hold in love Gudrun;
 An so you be my own wife, most lovingly I'll bear you
 hence right soon."

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1250. He looked upon her finger; he saw the gold ring there.
Herwic, the courtly, spake to Gudrun fair:
"No other surely bare you but was of princely line;
Thus after many sorrows have I seen joy and pleasure mine."
1251. With his arms he happed about that right glorious maid:
The news was unto each there, happy both and sad;
He kissed I know not how oft the virtue-teeming queen;
Both her and Hildeburgé, the wretched maiden, lovely to be
seen

As Ortwin will not hear of taking by stealth captives whom Hartmut kept in stormy battle, a tearful parting ensues. The maidens forget their tasks until Hildeburc reminds Gudrun:

1268. Then spake queen Hildé's daughter: "I am too proud by far
That such as I for Gerlint her weeds wash any more;
To such a wretched labor I needs must feel disdain,
When once two kings have kissed me and in my arms em-
braced have lain."

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1271. "So I shall bear these garments even to the flood,
(And well may they enjoy it," spake the maiden good,
"That I have had the fortune to be a queen to-day!)
I'll cast these on the billows that hence they freely drive
away."

At the castle a storm of curses greet the lazy queans, who chatter on the beach with men instead of attending to their work. And where is Gudrun's share? She stands before Gerlint in a most irritating position:

1280. Then up and spake the she-wolf: "Where are those weeds of
mine,
Since now so very lazily those same hands of thine
Are wound within thy kirtle all to my observing?
An I live a short space, I'll teach another mode of serving!"
1281. Then spake old Hagen's grandchild: "I have let them lie
Below there by the ocean. When that I did try
To carry them to castle, they bore too hard on me—
And by my troth I care not, tho' ne'er henceforth the same
you see!"
1282. Then out spake that she-devil: "Thou shalt not joy it so;
Before I turn to slumber, thou shalt come to woe!"
To bind the brooms with thorns and strip her then she bade,
A punishment unstinted Vrou Gerlint would not spare the
maid.

But Gudrun knows how to disarm her resentment with a word : " If I am hurt this day you shall rue it, so I ever in this land bear the crown ! " Gerlint cannot believe her ears, for it is seven years that the princess has never wavered in her refusal to marry her son, and when Gudrun's yielding is brought by a quick messenger to Hartmut, he too is incredulous, but hastens to the room.

1293. There stood, all in her wet shift, that most glorious maid,
And thus, with streaming eyes, a greeting of him made,
She steps right forth to meet him, and by him stands so close
That he, as if t' embrace her, his arms about sweet Gudrun
throws.
1294. She said : " Now nay, Sir Hartmut, you must not this forget,
That all the people know well, in whose sight we're set,
I am a wretched washmaid, and you might me disdain,
For you're a lofty monarch : how can you kiss me without
blame ? "

With such ambiguous acting proceeds the sly Gudrun. She now makes terms : her maids are to be bathed and sumptuously clad, and a certain room, which happens to be thick of wall and strong of door, is to be set apart, where the captives can enjoy each other's society all alone in a joyful feast. When all is ordered as she demands, the bolts are shot, and Gudrun stands exultingly before her women and begins the banquet. After all are well warmed with generous wine, she proclaims an " eye-pasture " for them on the morrow.

1332. " This day have I from Herwic, my spouse, received the kiss,
And from Ortwin, my brother ! Now all may ponder this :
Such maid of you that rich would be, without a care or sor-
row,
Let this be her sole duty, to tell when darkness yieldeth to
the morrow. "

In the camp of the Hegelingen the shameful treatment of their princess seems too great for credence ; but they must believe at last.

1342. Then all her kindred wept there for the hapless maid.
Waté, very ancient, wrathfully he said :
" You act most like to old wives that are faint of wit,
And all without a reason. For heroes this is never fit.
1343. " Now, would ye help our Gudrun from her sorrow dread ?
Why, color those same garments in strange fashion red,
Those same robes she washéd with so white a hand ;
In such wise let us serve her, and stop her woe in foreign land ! "

In the gray dawn the maid who watches from the captives' room sees the whole plain before the Norman castle, even to the shore, glittering with spears. She calls to Gudrun and at the same moment Waté sounds twice his mighty blast. The Norman sentry cries out, and wicked Gerlint wakes and rouses old King Ludewic. Then the whole castle hurries into the reality of a siege.

1360. The while Gudrun was speaking the people slept in hall,
Ere that Ludewic's watchman terribly did call:
"Up, up, ye lofty fighters! Arise, ye nobles, arm!
Ye daring ones of Normandy! thro' sleep I ween ye come to
harm!"

* * * * *

1394. With all his mighty power blew Waté blast the third,
Whereat the walls to quiver and waves to sound were heard.
Well might King Ludwic's corner-stones spring from out the
wall!
Then bade he Horand show forth Queen Hilde's standard
'fore them all.

1395. All greatly fear'd old Waté. Each did silent bide:
A horse was heard to neigh once: Herwic's royal bride
Stood upon the battlements. Seen were now the daring
Advancing in great order, who with Hartmut to the fight
were faring.

Is it not all like a scene at the opera? The lovely prize stands on the low battlements, and as the defenders issue from the gates the fight closes within sound of her voice; each hero has his turn of valor before her eyes. The battle rages. Suddenly old King Ludewic falls upon Herwic and unhorses him, but the latter is so stung by shame that he is ready for great deeds:

1441. He pondered in his spirit: "Alas, what's come to me?
If my lady Gudrun has happened this to see,
An we live to such days as I win her embrace,
Surely she'll bear malice when I take by her my sleeping
place.

1442. "That the mighty graybeard has cut me down right here,
Thereat I am ashamed!" Then he bade them bear
His standard toward King Ludewic with his men of might,
They hustled toward the foemen, nor would they let them
from their sight.

* * * * *

1445. Then Gudrun's true lover, striking under helm
 And over shield of Ludewic, quick did him o'erwhelm;
 So terribly he hurt him, no longer might he bide;
 Old Ludewic then before him must bitter death abide.

From this time on, the battle turns in favor of the invaders. Hartmut is cut off from the castle and hard beset. He tells his men that without wings they can not fly, nor can they sink through the earth, while between them and the ocean stands the enemy; that therefore their only hope is to push for the gates. This they attempt. Seeing their desperate straits, a Norman in the castle rushes up on the battlement to slay Gudrun. Hartmut hears her cry, and calls to his cowardly vassal to desist. Ortrun, Hartmut's sister, now implores Gudrun to ask for Hartmut's endangered life, which Gudrun does, appealing to her betrothed. Herwic hears, and finds the old *Kämper* Waté in full onset on Hartmut; yet he attempts to talk of truce to the warrior who is as hard to turn aside in battle "as a boar." Waté hears his appeal with derision, and even cuts him down rather than bear the interference. Then he takes Hartmut captive, and Danes and Normans enter the castle gates together. "A hard lady-service was done by Herwic."

The castle is being sacked, and Gudrun's hour of triumph is at hand. Cruel Gerlint throws herself at Gudrun's feet, and begs protection.

1509. Then answered Hildé's daughter: "Lo, now I hear you ask
 For clemency on my part! How can I do that task?
 Never once did I beg when you did aught for me:
 Most unpropitious were you; whereat I should be wrathful
 heartily."

1510. At just that moment Waté, the ancient, saw the same:
 Grinding teeth in anger, near to them he came,
 With his glittering eyes and with his ell-broad beard,
 All who then were present the Stürmen hero greatly feared.

* * * * *

1519. Grim of face old Waté stalked across the hall,
 He spake: "My lady Gudrun, thrust to yonder wall
 Gerlint and those counsellors, who forced you wash their weed,
 And all that very kinsfolk who in our land left heroes dead."

But Gudrun will not point out victims for the sword of Waté, however much they harmed her. Then he swears he will kill all

her company of maids, and one of them, frightened, indicates Gerlint with a look. Her daughter Ortrun escapes, but she is lost:

1522. He caught her by the hand and dragged her from the crowd;
 Gerlint the wicked 'gan to mourn aloud;
 He spake in raving madness: "Oh most illustrious queen,
 Your weed henceforth my princess right seldom shall be wash-
 ing seen!"

Therewith he strikes off the "she-devil's" head, and is ready to listen to milder counsels. Herwic and the younger knights are glad to rest in the company of the fair they have so valiantly rescued:

1530. His sword the sworder quickly from his side did yield;
 Then shook he off his armor all in his hollow shield,
 And passed all stained with iron to where the women stood,
 Through love of whom he often had cut that day through
 fields of blood.

Here all the tragedy ends and the players are rung out with a long peal of marriage bells. Gudrun and her Herwic, Ortwin her brother and Ortrun of Normandy, Hartmut and Hildeburc, Gudrun's faithful companion-princess, form three blooming couples to receive the benediction of the wronged, but now avenged, queen Hildé. The double comedy which began with Hildé's runaway trick on her father ends with three marriages; the only dead men of any importance are the two kings, Hetel and Ludewic, whose providential removal transfers their respective crowns to more interesting heads. But the very lack of tragedy, the very want of that breathless horror which rests in the current of the Nibelungen Song, wins the heart to the lighter and looser-textured epic. For the Kudrun is not only less compactly written than the Nibelungen, but is full of a light humorousness which does not reach the height of a smile. Its rhythm stumbles sadly in many stanzas and in almost all there is that peculiar lengthening of the fourth line, which causes a modern involuntarily to think of comic songs of a very similar metre, in which the last line is prose in part or entirely. In Gudrun and Nibelungen the fourth line is the favorite place for the instructive or solemn portion of the stanza, and thus what is admired in one age becomes the key-note for a laugh in another.

Gudrun herself is essentially Teutonic or, to bring the character into closer limits, Scandinavian; for the Scandinavians appear to be

purser descendants of such actors as figure in this song than the Germans. She is haughty, energetic, strong to resist temptation, trusty to her word of affiance under the lowest forms of abuse. She prefers curses and hard fare, freezing cold and the harshest labor, to breaking her vows, although by breaking them she would rule as queen. When hope does come, it is not to a broken-spirited slave. Forethoughted and resolved, she throws aside humility and boldly deceives at risk of not being rescued; she rejoices in her near deliverance, as if it were an accomplished fact. Yet she is a very different woman from the golden Kriemhild of the Nibelungen, who married again for power, and wasted years to wreak horrible vengeance on the murderer of her husband. Gudrun has a certain coldness about her like the beauty of the Scandinavian seas; one pities her in trouble and admires the perfect example of constancy; it is perhaps invidious to say of such a charming person that she does not touch one except on the side of pity. Without implying in any way a derivation, it may be said that her character and history remind one of Penelope and Helena respectively, in that like Helena she is carried off and rescued again in sharp fight by friends and relatives many years after; like Penelope she is a type of constancy. But such likenesses are of the most general description, for Gudrun is constant in a way the Greek could not have imagined. Evidently Penelope was not much displeased at her troublesome suitors. With Helena the similarity is in career only; their opposite characters are drawn when one compares Gudrun washing linen in the wintry sea and Helena as she appears in the *Odyssey*, presiding genially over Menelaus' household, after having brought so many of the bravest to destruction. Doubtless the Greek was the more bewildering woman of the two; but one can not be otherwise than enthusiastic over the unflinching heroism of her more masculine sister of the North.

In the Nibelungen Lied we find the Burgundians on the Upper Rhine attacked by Saxons and Danes, and at Attila's court Danes are in attendance. Here they are seen to be far beyond the present limits of Denmark in Germany proper, as if their early settlements had been gradually pushed out of Germany in the wake of Anglo-Saxon colonies and those of their own. In this light the final absorption of Denmark by Germany at no distant time may appear

a case of "manifest destiny" to Germany, whatever Danes may think.

When the first of Gudrun was written, the scene was of course laid in a distant century, and at a time when all the coast-settlers could understand each other. Christianity was doubtless far from popular, and among the Normans on the coast of France a superior civilization had not turned them French. The signs of Christianity in the song are not many, and are confined to stanzas outside of those called the kernel of the story, which ante-date the others by many ages. As to such myths as may be surmised in the plot itself, they cannot be placed in any one century. Marriage is described according to a simple rite which does not smack of the church; the *circle* is heathen.

1649. From the circle Ortwin caught with amorous hand
The lovely maiden to him. Then a finger-band,
All of gold, upon her right white hand did press;
Therewith from her was swept away her mighty care and
lonesomeness.

If then we drop the sumptuousness of the later menders and amplifiers of the poem, the signs of Christianity, and the stanzas where men weep or show too much of the etiquette of a later feudal age, we get an inkling of the Danish pirates who were settled on every coast (except, perhaps, the English, where their Anglo-Saxon predecessors made settlement too hard), and who sent out their small fleets every summer, and sometimes in winter, to ravage all shores. In the strongest gales, the trembling shoremen saw their dreaded foe approach the coast, as if he enjoyed wrestling with the waves, because some supernatural power guarded him. The landsman's fear was heightened by the small size of the vessel, which was generally without decks, sharp fore and aft, and with one broad sail. The raised bow and stern lifted the boat across the waves; and before the country could be roused, the marauders had entered the river, struck their blow and put to sea again. Boats not unlike these must have carried the Greeks to Troy, except that the peaks (*orthokrairoi*) were lower, but in this land we have a craft which is in all probability a closer descendant of the Danish pirate ship than any. It is called the "Block Islander." In rig the "Kocken" doubtless approached nearer to the Scotch lugger, the sails of which stand half-way between the primitive square sail drawn by a transverse

yard to the masthead, such as are seen on tapestries of the middle ages, and the fore and aft sail now generally in use. While in the Danish boat the yard hung at right angles, so that equal parts project on either side of the mast, the lug sail is secured so that the yard dips and the greater part rises behind the mast. With modern craft the yard becomes a gaff which springs directly from the mast.

An odd fact in regard to these Scotch luggers is that their crews to this day are exclusively composed of men of Danish stock, while the Celtic fishermen near by use a rig and boat of their own; no man of Danish stock will sail with a Celt, nor will Celts allow one of the other stock to form one of their crew. These purely Scandinavian colonists are celebrated for many of the virtues we find in action in the Song of Gudrun.

HENRY ECKFORD.

A STUDY IN STEAM ENGINERY.¹

THE history of this invention exhibits a very ancient pedigree. It is like the Apostolical succession of ecclesiastical history. Almost every Christian century has had something to do with it, and when we go to hunt up its pedigree, we as usual begin at the very first chapter; somewhere among the great men of ancient days, whose minds, like big boys in little jackets, had outgrown their times. The merit of the invention of the steam engine is claimed by every European nation—Italy, Spain, France, and England, in turn demand the prize. But the wonderful thing about this most wonderful of inventions is, that it is not a sudden creation like the telegraph, but is a slow development and growth.

An Irish clergyman, the Rev. Dr. Gregg, who has since become a dean or a bishop, when on a visit to this country some years ago, preached a sermon of an hour and a half's duration to prove that the Prophet Ezekiel's vision of the cherubim referred to the modern locomotive. And these were some of the points he made: "They turned not when they went." This referred to the rails. "Their appearance was as it were a wheel in the middle of a wheel." This

¹The following article is written in part from notes of the valuable lectures by the late Prof. John F. Frazer, of the University of Pennsylvania.

is the way in which a locomotive looks when it is going rapidly. "Take fire from between the wheels." This refers to the fire in the engine's furnace. "Fill thine hands with coals of fire," referred to replenishing the engine. "The sole of their feet was like the sole of a calf's foot." This had undoubted reference to the flange on the car wheel. "There was a great cloud and a brightness about it." Explanatory of the smoke and sparks. "And they sparkled like the color of burnished brass." This meant the brass boiler-tops and fixings, etc., etc., etc.

To the initiated few who find in the "little horn" of the Apocalypse a reference to "Louis Napoleon the destined monarch of the world," or to the Valley of the Mississippi as the place for the coming battle of Armageddon, this explanation of the steam engine may appear a nice and ingenious interpretation. But to the great majority of Bible readers the steam engine is a subject which they are content to find in other pages than the volume of Revelation.

Ancient civilization never touched upon the locomotive. Egyptian hydraulics and mechanics, Grecian wit, and penetrating Roman utilitarianism, as seen in the roads and aqueducts of the Campagna, never lighted upon the idea of heat as a mode of motion. What would the civilization of Europe have been had Cæsar's military roads been girded by the rails and sleepers of a modern railway? or if a "Great Western" road had run from the shores of the Caspian Sea to the Straits of Dover, and had opened up the wilderness of Germany as the Great Pacific Overland Route has hurried on the bustling civilization of the 19th century?

Then there would have been no Middle Ages! Imagine a Feudal System and a Railroad together! Then to-day we should be somewhere in the condition the earth will probably be in the year A. D. 3000—with bomb-ferries and phrenological bump-developments, according to a humorous sketch which appeared in *Harper's Magazine* many years ago. Or else Poe's story of the animated mummy, laughing down modern civilization, and matching every boasted improvement of to-day with some forgotten accomplishment of the past, would be nearer the truth and less an exercise of the risibles.

Historically, the first notice we have of the idea of motion by steam is found in a book of Hero's, B. C. 120. It was discovered among other writings in the Alexandrian library. The instrument

is of three or four different forms, and is called the *Æoliopile*, from two Greek words, signifying the ball of *Æolus*. Since the time of Hero it has been applied for various purposes connected with the steam engine, but from its want of power deserves to be called a toy rather than a useful engine. The *Æoliopile* is a vessel with an airtight lid, through which is a pipe open just through the lid and terminating in a cup. Within this cup there is a ball, and by heating the water in the vessel, the steam generated made the ball rise and fall.

Hero, with whom these experiments appear, to have originated, did not always innocently apply his learning or discoveries. In the temples of the idols the largest and most ingenious of Hero's works were erected, to deceive the people and perpetuate the dominion of the priesthood. Nor was he ashamed to record the fact or describe the mode in which he practiced the deception. He explained the way in which, upon a fire being lighted on the altar, the priests poured a libation upon the fire and a dragon shrieked. In short, he was the inventor of our steam-whistle. In one of the temples he contrived an altar made of metal, filled with water, through the bottom of which passed a pipe with branches to the dragon and the metallic forms of the bogus priests. In the mouth of the dragon there was a whistle, and the air driven out produced the "sibylline sounds." In the breast of each of these statue-priests there was a vessel of oil and two pipes, one coming in from the top and the other going out from the bottom, and down the arm of the priest. Thus it happened that when the air came along the pipe, the oil was condensed and poured upon the libation.

In 1629 Branca, an Italian architect, published a work descriptive of a machine which consisted of an *Æoliopile*, projecting a current of steam upon the floats of a wheel; and the same thing seems to have been done in China by the Jesuits, to amuse the Emperor Kanghi, who died in 1722. Pere du Halde, in his history of China, says: "They caused a wagon to be made of wood about two feet long, in the midst of which they placed a brazen vessel full of live coals, and upon them an *Æoliopile*, the wind of which issued from a little pipe, upon a sort of wheel made like the sails of a wind-mill. This little wheel turned another with an axle-tree, and by that means the wagon was set running for two hours together. The same contrivance was likewise applied to a little ship with four wheels: the

Æoliopile was hidden in the middle of the ship, and the wind issuing out of two small pipes filled the little sails and made them turn about a long time. The artifice being concealed, there was nothing heard but a noise like wind, or that which water makes about a vessel." So much then for Hero, and what the ancients knew about the steam engine.

The claim of Spain to the invention of the steam engine is by the invention of one Blasco de Garay, in the year 1543; that of Italy to Baptista Parta in 1606, and Giovanni Branca, in 1629. France has two claimants, Solomon de Caus, in 1615, and Denis Papin, in 1695. England presents a long list of inventors: the Marquis of Worcester, Sir Samuel Moreland, Savery, Newcomen and James Watt.

The first claim to the honor of inventing a steam engine is presented by Spain in behalf of Blasco de Garay, who in 1543 petitioned the Emperor Charles V. for an opportunity to make trial of a machine by which he could propel vessels without oars or sails. Garay concealed altogether the nature of the machine he used: all that was seen during the experiment was that it consisted of a great boiler for water, and that wheels were kept in revolution at each side of the vessel. The experiment was made upon a vessel called the "Trinity," of 200 tons burden, and was witnessed by several official personages, whose presence on the occasion was commanded by the King. The experiment was successful, and the commissioners, with one exception, reported the speed to be three miles an hour. Ravaga, the King's treasurer, who was no friend to De Garay, viewed the performance less favorably. He stated that the machinery was complicated, and the speed trifling, and the boiler very dangerous. So it happened that De Garay, disappointed and disgusted, blew up his vessel to prevent its falling into the hands of others. The Italian claim is based on the invention of Baptista Porta in 1606. He amused himself by arts of mystery, and wrote a book *Of Natural Magic*, which is very curious. Among other things he describes the means of elevating water by fire. In 1629 the Marquis de Branca, who delighted in the province of Pharmacopia, applied the steam engine to the pounding of drugs by a complicated arrangement of pestle and mortar. He had a horizontal steam wheel (a flutter-wheel), and in front of it a boiler with a jet of steam to turn it.

But there was an elaborate system of clog-wheels, which exerted so much friction that the apparatus never amounted to anything.

The first French claim is based on the experiments of one Solomon De Caus. He was an architect and engineer to Louis XIII., and his merits in connection with our present subject have been warmly advocated by the illustrious French philosopher Arago. In the year 1612 he entered the service of the Elector Palatine, who married the daughter of James I. of England. With that prince he came to London, and was engaged by the Prince of Wales in the decoration of the gardens at Richmond. In 1615 he published a book on motive forces, and this book became the source, two hundred years later, of bitter dispute and angry contention. Arago blames the English authors for disallowing the claims of De Caus to the honor of a share in the invention of the steam engine.

Another account of De Caus is that he was a Fleming, and went to France and offered to raise water into the king's palace at Versailles by fire. However this may be, he was put into the insane asylum for bothering Cardinal Richelieu, who was then on his upward flight into the realm of unchecked power. De Caus died in the asylum, and there is a story that he was visited by the Marquis of Worcester, who took from him his ideas about the agency of steam. In Mrs. Austin's memoir of the Rev. Sydney Smith, there is a curious allusion to the claims of Solomon De Caus. The Rev. Sydney writes as follows to a certain friend: "I am old, but I certainly have not the sign of old age, extolling the past at the expense of the present. On the contrary, the progress of the world in the last fifty years almost takes my breath away. Steam and electricity have advanced it beyond the dreams of the wildest visionary two hundred years ago. By the by, on the subject of steam, I have a most curious letter, which I extracted from a periodical and will show you: it struck me as so interesting, that I made inquiries about it from the author of the publication, and have reason to believe it is authentic:

LETTER OF MARIAN DE LORME TO THE MARQUIS DE CINQ-MARS.

"PARIS, February, 1641.

"MY DEAR EFFIART:—While you are forgetting me at Narbonne, and giving yourself up to the pleasure of thwarting M. le Cardinal de Richelieu, I, according to your express desire, am doing the honors of Paris to your English

Lord the Marquis of Worcester; and I carry him about, or rather he carries me, from curiosity to curiosity, choosing always the most grave and serious, speaking little, listening with extreme attention, and fixing on those he interrogates two large blue eyes which seem to pierce to the very centre of their thoughts. He is remarkable for never being satisfied with any explanations which are given him, and he never sees things in the light in which they are shewn to him: you may imagine this by a visit we made together to Bicêtre, where he imagined he had discovered a genius in a madman. If this madman had not been actually raving, I verily believe your Marquis would have entreated his liberty, and have carried him off to London to hear his extravagances from morning till night, at his ease. We were crossing the court of the mad-house, and I, more dead than alive with fright, kept close to my companion's side, when a frightful face appeared behind some immense bars, and a hoarse voice exclaimed, 'I am not mad! I am not mad! I have made a discovery that would enrich the country that adopted it.' 'What has he discovered?' he asked our guide. 'Oh!' he answered, shrugging his shoulders, 'something trifling enough: you would never guess it: it is the use of the steam of boiling water.' I began to laugh. 'This man,' continued the keeper, 'is named Solomon de Caus; he came from Normandy four years ago, to present to the king a statement of the wonderful effects that might be produced from his invention. To listen to him, you would imagine that with steam you could navigate ships, move carriages; in fact, there is no end to the miracles which, he insists upon it, could be performed. The Cardinal sent the madman away without listening to him. Solomon de Caus, far from being discouraged, followed the Cardinal wherever he went with the most determined perseverance; who, tired of finding him forever in his path, and annoyed at his folly, shut him up in Bicêtre, where he has now been for three years and a half, and where, as you hear, he calls out to every visitor that he is not mad, but has made a valuable discovery. He has even written a book entitled "*Les Raisons des Forces mouvantes, avec diverses machines tant utiles que puissantes.*"' Lord Worcester, who had listened to this account with much interest, after reflecting a time, asked for the book, of which, after having read several pages, he said, 'This man is not mad: in my country, instead of shutting him up, he would have been rewarded. Take me to him, for I should like to ask him some questions.'

"He was accordingly conducted to his cell: after a time he came back sad and thoughtful. 'He is *indeed* mad now,' he said; 'misfortune and captivity have alienated his reason; but it is you have to answer for his madness: when you cast him into that cell, you confined the greatest genius of the age.' After this we went away, and since that time he has done nothing else but talk of Solomon de Caus."

Now, whatever we may think of this very singular letter which interested so greatly that prince of English wits, the Prebend of St. Paul's Cathedral, whether it is genuine or spurious, still it covers ex-

actly the matter of dispute between the two nations as to the honor of inventing the steam engine.

The French say, "We had the true inventor, though we took him for a lunatic; and it was from him that Lord Worcester took his fire." On the other hand, the English claim that this discovery was solely their own.

The other French claimant is one Denis Papin. In consequence of the revocation of the edict of Nantes, he was compelled to leave his native country and take refuge in England. In 1681 he was elected a Fellow of the Royal Society, and some time afterward received the appointment of Professor of Mathematics at the University of Marburg, which position he filled until the day of his death. In driving from the shores of France under a fiery persecution this philosopher, his country lost all claim to the honor of appropriating the glories of Denis Papin. In 1680 he invented his safety-valve for the relief of the pressure. It consisted in an opening in the top of the cylinder with a lid over it, and on this lid the number of pounds weight that we want steam. This is the ordinary form, which is still in use.

He introduced many other improvements; such as the use of gunpowder to create a vacuum, the use of a vacuum as an effective force at a distance, a condensation of steam in regular intervals, and a machine for the propulsion of a boat at sea, with various degrees of success. The career of this inventor, repudiated by his nation when living and honored by it when dead, is another illustration of the old lines—

"Seven wealthy towns contend for Homer dead,
Through which the living Homer begged his bread."

Edward Somerset, Marquis of Worcester, heads the catalogue of English inventors. We have already seen his interest in this subject in touching upon the career of the unfortunate Solomon De Caus. Little did he then imagine, when he saw the poor Frenchman in his cage, that his own would be a very similar fate.

The popularly received story of the manner of his invention is, that being seriously implicated in the troubles of the Stuarts, he was imprisoned in the Tower of London.

One day the lid of the pot in which his dinner was cooking suddenly rose, whereupon it occurred to him that the same force

which had lifted the lid might become a useful and convenient power. The Marquis of Worcester, was a royalist, and fought hard for King Charles I. He defended Raglan castle to the last, and when this was surrendered to Cromwell it was the last stronghold of the King. He was very fond of mechanical works, and had a great amount of machinery, reservoirs and water-wheels about his place, and in particular, a very large reservoir over his front gate. He had a quantity of pikes secreted in the cellar of the castle; and on one occasion, when a committee from Parliament visited the castle to look after arms, it was desirable to keep them away from the cellar. So just as they were going down there the machinery was set in motion, producing a most dismal sound, as of a fog horn, and at the same moment the servants came running in all breathless, and crying that "the lions were loose!" The committee immediately thought it best to withdraw, and did so with more haste than dignity; but just as they were passing out of the gate the flood-gates of the reservoir were opened, and they were all cooled off.

When the castle was finally taken, he fled to Holland, and on his return was locked up in the Tower, and he remained a poor lord all the rest of his days. He now turned his mind to inventions, and in 1663 published "A century of the *names* and *scantling* of such inventions as at present I can call to mind to have tried and perfected." In this book there are many extravagant propositions, but there are also many useful inventions which have been adopted and valued in our own time. He had peculiar kinds of locks, sympathetic ink, and a breech-loading gun. His 98th specification is supposed by some to have been the piston. It is thus described: "An engine so made, that moving the primum-mobile up, down, sideways and backwards, the work is all done in the same direction." His famous 66th specification is the invention of a steam-engine for raising water, which he thus describes: "I have invented an admirable and forcible way to drive up water by fire; not by drawing it or sucking it upwards, for that must be as the philosopher termeth it '*infra spherum activitatis*.' But this way hath no bounder if the vessel be strong enough. For I have taken a piece of whole cannon whereof the end was burst and filled it three-quarters full of water, stopping and screwing up the broken end, as also the touchhole, and making a constant fire under it. Within twenty hours it burst and did make a great crack. So that, having a way to make my vessels

so that they are strengthened by the force within, and the one to fill after the other, I have seen the water run like a constant fountain stream forty feet high. One vessel of water rarified by fire driveth up forty of cold water, and the man who tends the works has but to turn two cocks; that one vessel of water being consumed, another begins to force and refill with cold water, and so successively: the fire being tended and kept constant, which the self-same person may likewise abundantly perform, in the interim between the necessity of turning the said cocks."

In 1663 Parliament gave him the facilities for erecting this engine; and we know it was erected, for in 1669 Cosmo de Medici visited London when it was in operation, and speaks of its doing more work than an engine worked by three horses.

Worcester died in 1669, and left a widow who did much to hand his works down to posterity.

Thomas Savery is England's next candidate for inventive honors in the steam engine line. He was a captain or foreman of a mining party, and obtained a patent in 1690 for a steam engine of a peculiar construction, to raise water into a vacuum produced by the condensation of steam. The form of his engine and other circumstances leave little doubt that he was unacquainted with Denis Papin's suggestions on this subject. According to his own account, he was led to apply the condensation of vapor as a means of obtaining a vacuum by an accidental circumstance. Being on one occasion in a tavern, he called for a flask of Florence wine, and having drank its contents threw the flask in the fire. His eye fell upon the unbroken flask, in which a little wine remained, and he saw that steam was issuing from its mouth. Hastily covering his hand with a thick glove, he plunged the neck into a basin of cold water and the flask was almost instantly filled with the liquid; the steam had been condensed; a vacuum had been formed and the atmospheric pressure forced the water into the empty space. It has been said that Savery copied from the Marques of Worcester, and that he bought up and destroyed all the copies of Worcester's pamphlet already spoken of. There appears, however, very little evidence for this statement. No sooner was the experiment alluded to made, than Savery perceived he might discard the piston and sucker of the common pump, and obtain as good a vacuum by filling a cylinder with steam and then

condensing it; that the atmospheric pressure would force the water to the same height in the one case as in the other; and that the elastic force of steam hinted at by Worcester and others might then be employed to force the water by successive stages to any height required. All these thoughts were applied by Savery in the construction of his engine, which was principally used in raising water from the mines, and differed from Worcester's in introducing suction, and also in keeping the condensing and pressure principle. Mr. Farley, an expert on this subject, says: "When a comparison is made between Captain Savery's engine and those of his predecessors, the result will be in every respect favorable to his character as an inventor and as a practical engineer; and his engines were brought into frequent, if not general use."

Thomas Newcomen follows Savery in the line of inventors. He was an iron-monger or blacksmith, living at Dartmouth in Devonshire; and having frequent occasion to visit the tin mines of Cornwall, was made acquainted with Savery's engine, and soon perceived its efficiency. In association with John Cowley, a plumber and glazier of the same town, he commenced a series of experiments, and at last designed and constructed a new engine. This was in 1711. Newcomen's engine was a great improvement upon all previous designs, and yet the improvement was in the mechanical arrangement rather than in the discovery of any new principle. As his object was to discover a better means of draining the mines, he, with great judgment, resolved to retain the pumps as then employed, and to confine his attention to a better means of working them.

Otto De Guerick had shown the application of a piston working in a cylinder as a mechanical arrangement in his air-pump. Papin had suggested it for a steam engine, and its action was well known in the common hydraulic pump. Fixing a beam, suspended at its centre so that it could move freely on an axis, he attached the pump-rod by a chain to one of the curved ends, commonly called arch-heads, and to the other side the piston-rod of the steam engine. This is our common working beam. With this mechanical adaptation, he demonstrated the problem Papin had been unable to solve. The means of obtaining an upward motion of the piston had been suggested; it was to be effected by the expansive power of steam introduced at the bottom of the cylinder. The downward stroke was to be produced by atmospheric pressure; but this could not be

effected without condensing the steam that had raised it. To accomplish this object, in which all other mechanics had failed, he surrounded the cylinder with a casing, leaving an interval between them, which when required was filled with cold water. For the working of the engine two valves were necessary, and they were to be alternately opened and closed. The one was to admit steam, the other was to admit cold water into the cylinder. The regulating valve for the introduction of steam was opened when the piston was at the bottom of the cylinder, the condensing valve when it was at the top. The regulation of these valves was entrusted to boys. One of these, an ingenious little fellow named Humphrey Potter, tired of his monotonous employment and anxious to join his companions at play, devised a way by which his presence could be dispensed with. For this purpose he connected the levers by which the valves were opened and closed to the walking-beam with strings, in such a way that the beam itself performed his work without detriment to the motion of the engine. In 1718 Captain Beighton improved this by using a plug-frame, which in going down turned one set of valves and in going up turned another set. Such in fact was Newcomen's engine. It wanted in economy in fuel, for he had to heat to 212 degrees and then cool to 100; but we are indebted to him for the introduction of condensing steam by an injection of cold water, and for the expulsion of the condensing water by the injection of steam, and also for the introduction of the working beam.

James Watt, the great inventor, was born at Greenock on the nineteenth of January, 1735. When very young he gave evidence of great precocity of mind and a decided attachment to mathematical pursuits. His first efforts were displayed in taking to pieces and putting together his toys. Having made himself the master of their construction, he undertook the more serious work of making an electrical machine, in which he was equally successful. In this way, amusing himself and his young friends, he spent many hours of debility and of bodily pain, which prevented him from going to school and indulging in the out-of-door amusements of all school-boys. With a clear and rapid perception, a strong and retentive memory, and an industry that never flagged, he added daily to his store of information. His thoughtful and seemingly listless habits were not viewed as evidences of genius by all his friends.

It is related of him that upon one occasion, when visiting his aunt, she reproved him for his absence of mind and indolence. A well known popular engraving has made this scene a very familiar one to many households. "James Watt, James Watt," she said, "I never saw such an idle boy; take a book and employ yourself usefully; for the last hour you have not spoken a word, you have done nothing but take the lid off that kettle and put it on again, holding now a spoon, now a cup over the steam, and watching how it rises from the spout. Are you not ashamed of spending your time in this way?"

After various fortunes, Watt was appointed Mathematical Instrument Maker at the University of Glasgow. He studied French, German and Italian, in order to read about experiments upon the steam-engine in the different countries, and learned Greek in order to read Euclid in the original. The studious young men of the University were in the habit of gathering at his shop, which soon became the head-quarters for men of a scientific and inventive turn of mind.

In 1762 Watt tried experiments on the high-pressure engine, but scalded himself, and seems always to bear a grudge against that class. It was eventually under the firm of Boulton and Watt that his greatest improvements in the single and double-acting condensing engines were made and perfected. The happy conception which formed the first step in the career which has immortalized the name of Watt, was that of condensing the steam without cooling the cylinder; that is, in keeping the condensed steam in a place by itself, which he called the condenser. This was a gain on Newcomen's engine in three respects. It was a gain in *power*. The top of Newcomen's cylinder was open, and the air would come down and cool the cylinder. Watt kept his cylinder closed. It was a gain in *duty*. Newcomen had to use two cylinders of steam for each stroke, while Watt only used one-fourth of this amount. The ratio was, therefore, 8 to 5, and the saving was 37 per cent. It was a gain in *adaptability*. A greater force must be used to start than to keep the piston in motion. This force is just double the inertia of the quantity of water. Newcomen had to use the same force all the time. Therefore, there was a great jerk when the piston was to ascend, which injured the machinery. To prevent this, Watt pressed his down by steam, and when it was in motion he stopped the steam;

but as it still kept expanding, he arranged that the force should be spent just as the piston reached the bottom. He only used one-third of the cylinder of steam, but yet he gained by the expansion.

The name of Fulton is always connected with the department of steam navigation. But before we come to him, we must mention the name of Oliver Evans, who ran a scow from Market street on the Schuylkill to Market street on the Delaware. This was in 1804. The city then wanted a boat to dredge Old Dock Creek. Evans invented a boat with an endless chain moving over two rollers with buckets on it.

He built an engine and ran it from Ninth and Market streets as far as the paving continued and then placed a wooden tramway over the wooden part. In this way, over stone and rail, in two days he reached the river. Here he had a scow ready with a stern-wheel to it. He then put the engine to work and ran with this extemporized steamboat down the Schuylkill and up the Delaware.

The fact that Fulton was the first to navigate American waters with a steam vessel is sufficient to draw our attention to his proceedings; for though as early as 1783, an attempt was made by Fitch and Rumsey, and in 1791 by John Stevens of Hoboken, Fulton was the first to establish a steam-boat upon our rivers. He, it appears, like many others, had been studying the steam-engine with the intention of making it useful in navigating vessels. To procure further information, or obtain assistance for his enterprise, he visited England, and in 1802 proceeded to Scotland. There happened to be at that time a small steam-vessel on the Forth and Clyde Canal, which had been built as an experiment for Lord Dundas, and was occasionally employed for towing. This little boat, it appears from indisputable authority, was propelled by a horizontal engine; and so well answered the expectation of its inventor, that the directors of the canal refused to allow the vessel to ply on their waters, because it produced undulations on the surface which were injurious to the banks. Fulton, as was most natural, was anxious to see the "Charlotte Dundas," as she was called; and at his request, several trips were made that he might have an opportunity of examining the action of her machinery. From England, Fulton proceeded to France, hoping to have interested Napoleon in his design, and to have received his assistance in the establishment of his great object,

steam navigation. He, however, was disappointed of the assistance he had hoped to receive from Bonaparte; but this loss was recompensed by the coöperation and advice of Livingstone, who was at that time in Paris, as the representative of America to the Consular Government of France. He promised to provide money for the building of a vessel; and so Fulton returned to America to superintend its construction. To prevent failure from an imperfect or badly manufactured one, it was thought desirable to obtain it and the steam apparatus from England. Drawings were accordingly made and sent to Boulton and Watt for execution.

Everything was now in preparation for the grand experiment; but many difficulties were yet to be overcome, and many sources of delay arose, independently of the disadvantage of receiving the engine from England. In 1807, however, Fulton launched his steam vessel on the Hudson, and in the beginning of 1808 she was working regularly between New York and Albany, with a speed of about four miles an hour, which was afterwards raised to six miles an hour by the adoption of improvements. The greatest speed obtained by any of Fulton's boats was nine miles an hour, and this he considered all that could be accomplished.

This was a low estimate of the effective power of steam navigation, and may prove that Fulton had a far less accurate idea of what could be done with the marine engine than Stephenson had of the speed of the locomotive. The arrangements of the engine house in modern steamers are essentially the same as those adopted by Fulton. The paddle-shaft was carried across the vessel, and the wheels were urged on in the same manner as at the present time; and although he introduced but one cylinder, he applied a beam on each side, and the connecting rods were attached to a crank. Our immense rivers and inland seas have given an impetus to commerce and steam navigation found in no other country; and could but the ghost of Robert Fulton revisit his native land, he would stand on the banks of the Hudson, like the astonished Rip Van Winkle, and wonder whether it was a reality or some dream, the creation of a disordered intellect.

The opening of the Manchester and Liverpool Railway must be considered as the commencement of the railway system. As soon as the directors had resolved upon the adoption of locomotive engines, they took into consideration by what means they

were to secure the most effective means of constructing them for the traffic of the road. No plan seemed so fair to inventors and manufacturers as a public competition; and to offer an inducement for trial, it was resolved that a reward of five hundred pounds should be given to the maker of the most successful engine. The conditions required were that there should be no smoke, that the pressure of the steam should not exceed fifty pounds on the square inch, and that the engine should draw three times its own weight at the rate of ten miles an hour. The proposals were published in the *Spring of 1829*, and the trial was made in the autumn of that year.

On the day appointed three engines entered the list: the *Rocket*, made by Stephenson; the *Sanspareil*, by Hackworthy; and the *Novelty*, by Braithwaite and Ericsson—the latter of the “caloric engine” and “*Monitor*” fame. The place of trial was a level piece of rail a mile and a half in length, over which the engines were to travel ten times, backwards and forwards, between stations erected at each end of the novel course, making in all a journey of thirty miles. The *Sanspareil* had only passed eight times between the stations when it was disabled. The distance it traveled was $22\frac{1}{2}$ miles, which it performed in one hour, thirty-seven minutes and sixteen seconds. The *Novelty* had only passed the stations twice when the joints of the boiler gave way. The *Rocket* performed the entire journey twice; the first time in two hours, fourteen minutes and eight seconds; the second time in two hours, six minutes and forty-nine seconds. Its speed during the trip is said to have varied from 29 to $11\frac{1}{2}$ miles an hour.

Had the *Sanspareil* completed the journey in a time proportionate to that in which it ran twenty-two miles, its speed would have been greater than that of the *Rocket* on its first trip. As it was, however, the prize was justly awarded to Mr. Stephenson, as his engine complied with all the requirements of the competition. The glory of this great success was marred at the time by the sad accident to Mr. Huskisson on the trial ground. But the setting sun of that holiday afternoon, as it shone upon the thousands of dispersing spectators, marked the initial point of a new era in modern civilization; for the sequel of this story of the contest of the engines, we see about us in the marvelous development of railway enterprise to-day.

Of course we are familiar with the later inventions in steam, in

mills and factories, in instruments of labor, in fire engines, and as a mode of heating houses. But we must bear in mind the "condenser" to every engine, and must forbear to enlarge.

What remains to be discovered in the realm of the unknown, and what to be invented in the realm of the possible, awaits inquiring humanity in the immediate future. Never in the history of civilization has there been such a start forward, a hand-over-hand grasp upon futurity, as in the last sixty years. The girdle of Puck has been put around the world in forty seconds, and the distorted dreams and visions of the world's catalogue of inventors in steam have at last been realized.

The famous prophecy of Mother Shipton, in England, has at last been accomplished in many respects. Steamboats, telegraphs, iron-clads, tunnels, the gold discoveries, the admission of the Jews into England, have been accomplished in our century, as the fire of London, the execution of Charles I., the death of Cardinal Woolsey, and the reigns of Elizabeth and James, prophesied long before, came to pass each in their own time. Her doggerel verses, which are a powerful influence in parts of Yorkshire to this day, are as follows—and with their marked coincidence with the inventions of this age, of which this steam engine history is a part, we shall leave the subject:

“ Carriages without horses shall go,
And accidents fill the world with woe;
Around the world thoughts shall fly
In the twinkling of an eye.
Water shall yet more wonders do,
Now strange, but yet they shall be true.
The world upside down shall be,
And gold be found at the root of a tree.
Through the hills man shall ride,
And horse nor ass be at his side.
Under water men shall walk,
Shall ride, shall sleep, shall talk.
In the air shall men be seen,
In white, in black, in green.
Iron in the water shall float
As easy as a wooden boat.

Gold shall be found and shown
 In a land that's now not known.
 Fire and water shall wonders do.
 England shall at last admit a Jew.
 The world to an end shall come
 In eighteen hundred eighty-one."

WM. WILBERFORCE NEWTON.

A TALK ABOUT FINANCIAL POLICY.

X. John Henry Newman says somewhere that he always liked to get a man to go half a mile with him, even if he refused to go the whole mile, or to "go twain." I quite understand his feeling, and I am glad to find that we two can go so far together, although we differ on the practical question—"What is to be done?"

Y. Yes, we do agree on a good many of the financial issues which have recently been raised. I say, "issues;" for although newspapers and other partisans on both sides make a glorious mixture of things the most distinct, there is not one question, but several, before the people. It is not unnatural in them, for the very theory of popular government by the partisan method presupposes that all complex questions of this sort can be brought down to a fine point, and the popular "Yes" or "No" be had on them by the election of men who represent one side or the other. But the facts seldom correspond to the theory, and in this instance less than commonly.

X. Briefly, then, what are the leading points at issue under this discussion about contraction and inflation?

Y. They seem to me to be, (1) Has the country too much currency or too little? (2) Shall the paper money of the country be issued by the Treasury or by private corporations? (3) Shall our National Banking monopoly of paper issues be continued, or shall we supplement it by free banking outside as well as inside the national banking system, or shall we supersede it by free banking? (4) Is an inconvertible currency a nuisance or not? (5) Supposing it to be one, can we make it convertible into gold and silver at some fixed date? (6) Or does the national credit, represented by

interest-bearing bonds, furnish an equally good and far more accessible basis for circulation? (7) Of what sort shall the bonds be?

X. Your list covers most of the issues raised; and they certainly do possess a certain independence of each other. One might, for instance, answer the first question as either the Ohio Democrats or the Ohio Republicans would answer it, without being committed to any given answer to either of the other five. Each of them certainly should stand on its own merits, and be answered on that footing.

Y. Let us see how far we are agreed. First of all, we both think that our paper currency is in excess of the ordinary business needs of the country, though at certain times of the year there is rather a scarcity than a surplus. We agree that some self-regulating method of adjustment to the actual wants of the business community is greatly needed.

X. Certainly. The existence of a surplus at certain times of the year, is one of the most unwholesome features of our business life. It tempts the banks to loan the money for short periods to all sorts of unscrupulous speculators and gamblers, while they will not lend it to men engaged in legitimate business on practicable terms. And it is growing harder every day for the banks who will not gamble, to keep to the narrow and direct line of legitimate business. The whole force of the current works against them, and they only keep out of the rapids by rowing steadily up the stream.

And then as, to the need of more money at special times, that will always continue until we get a National Clearing House to settle accounts between different parts of the country, by the simple process of set-off.

Y. I believe we are also agreed in not being "hard-money men." We have no superstition about "the hard pan," "the money of God and of Democracy," "the medium of the world's circulation," and all the rest of the platitudes and phrases which pass for thought and argument with a certain class. We agree that gold is not needed either as the medium of circulation or as the basis of circulation, and that its only real use is to settle the unhappy balance of our unjustly arranged international commerce, and to pay the national debt.

X. Yes; I think we stand on the same ground there also. If W. were here he would treat us to an allusion to that well nursed dar-

ling, "the rag-baby." It's curious that we don't hear near so much of the golden calf and its worshippers. Though to be sure, phrases of that sort do not fly so freely since the November election. Some people are finding the pledges given before that election are about the most irredeemable currency ever issued in this country. Whether they are "convertible" into something more "specious" before the next election, remains to be seen.

Y. At the same time we are agreed in entertaining no prejudices against gold; we are quite willing to see our paper money made convertible into it now or at any future date, provided gold is to be had for the purpose. We do not object to "resumption of specie payments," provided that be possible. We only disbelieve in its possibility with the supply of gold now on hand or easily obtainable by 1878 for the use of the Treasury. And we fear that to begin with less than a full supply would simply lead to the formation of another huge Gold Ring to break the Treasury.

X. Would it not be possible, by a vast contraction of the paper money in circulation, to force paper up to par with gold, and thus make the resumption of specie payments a thing of course? That is what seems to be the programme of a good many theorists.

Y. If contraction could be carried so far that paper money was made so scarce that no Ring or Clique could secure enough of it to "run on" the Treasury and exhaust its gold, then contraction would bring resumption. But I think that even the most zealous contractionist would hardly want to venture so much. He could not but see that it would bring upon the country a worse prostration of all business and all industrial activity than we have ever experienced. I fear not that they will do this deliberately, but that they will drift into it as an unforeseen consequence of some of their measures. For instance, that proposed law to simply fund the greenbacks; if it be carried, what effect will it have on the circulation? National bank notes are and must be redeemable in something. When the greenbacks are gone, in what? Why every national bank in the country will hurry to destroy or greatly contract its circulation, rather than encounter the naked responsibility of redemption in specie. They are even doing so already. During 1875, forty millions were in this way cancelled, while only twenty-five millions of new issues were provided for.

X. Some of the resumptionists hope to increase the supply of gold

in the country at command of the Treasury, simply by contracting the paper currency. They argue that we have driven gold out of the country by making it needless, by supplanting it by paper money. Create a need for it, and it will come back at once, by the law of demand and supply.

Y. I read that law somewhat differently. *Need* is not *demand*. Gold leaves the countries that need it most to seek the countries where it will command most commodities. It leaves poor countries for those that are rich, and where the organization of labor has been carried to the highest perfection. To use Mr. Carey's illustration, if you start a shilling in circulation in Central Asia, it will be pretty certain to turn up in London. Were our industries as complete in organization, and our capital as largely accumulated as that of England, we could then stop the flow of gold across the Atlantic. That they will be ahead of her at no very distant day, and that the golden tide will set westward, I firmly believe. That is to say, we will get gold in plenty when we have least need of it. The mother wit of the people tells us that "they who have the goose, will get the goose." That, I think, is the true law of supply and demand.

X. I don't know but that I agree with you.

Y. Is it true, as *The Ledger* and some other papers tell us, that the drain of gold from the country is caused by the purchase and importation of bonds which have been held abroad as an investment for idle capital at home?

X. No such thing; there has been no great demand at home for Government bonds as an investment, chiefly because they are liable to be speedily called in and redeemed, and because they are too dear; and what demand there is, is more than met by the supply to be had at home. Ask any dealer in stocks and bonds, and he will tell you that the only market for our bonds is New York, where they are sold for exportation. Even that market would be destroyed, if those Dutchmen over the big pond could be got to understand that they are liable to immediate redemption, and will be redeemed as fast as the United States can raise the money by the issue of bonds bearing a lower rate of interest.

Y. Well, then, I think we are also agreed further that inconvertible money is a very bad currency, being under no control as to its volume and consequently as to its value, except what is furnished by the wisdom or unwisdom of those public officers or corporations

who issue it. There should be, there must be, some way of getting the currency to adjust its volume to the needs of the community, without anybody needing to know when was the right time to pull a string or turn a crank, and increase or diminish our supply of the circulating medium. Our financial machine should be like those new self-regulating pumping engines which have recently been set up to supply several of our towns with water. They pump till the water reaches a certain level in the stand-pipe, and there they keep it; they will stand idle half a day if none be drawn, but to turn on a single hydrant in the town is to start them at once. Sometimes the fly-wheel takes half an hour to make a single revolution, at others it flies like the wind. But under our regime of inconvertible currency, the financial machinery is like nothing in the world so much as the old weather-cock on the top of the Governor's house in New Amsterdam, which commanded more confidence than did the others in the mind of sober Gothamites, because the Governor's servant climbed up every morning and set it with the wind.

X. Well, you need not be so eloquent on that point, as we are pretty much all agreed on it. The only real difference is that hard money men think that we must put off the establishment of convertibility until we have gold into which our money is to be convertible, while we on our side of the house, though we may differ very much as to the method, are agreed that no such delay is necessary.

Y. Yes, that is just the turning-point. Judge Kelley, for instance, differs from his critics—if I can call them such, who deal more in the low abuse of a Tombs lawyer than in language befitting the seat of judgment—not in that he loves our present system more than they, but in that he sees a way to get rid of its radical fault, while they propose to go on hugging the “rag-baby” till 1878.

X. Well, you know I can't go as far with the Judge as you do.

Y. But there is another point worth noticing, and yet seldom or never noticed in this connection. Our national currency has not always been an inconvertible currency. During the period of its issue it was always convertible into United States bonds at their par value, and those bonds bore a high rate of interest, and were in fact always really worth more than par, as they now sell for more. The credit of the nation was good for their full amount whichever side won. The final defeat of the national armies would have had no effect beyond separating the South from the Union, and the great

body of the people would have abided by their promises to pay, as they clung to the Union of the States. There never was any real risk in lending to the North, while there was a great risk in lending to the South.

X. I am not so certain that there was no danger of repudiation. But certainly it is only since the bonds have risen above their par value in greenbacks, and even in gold, that the greenbacks have become an inconvertible currency. It seems to me the funding problem is this—to bring the bonds down to gold value, and the greenbacks up to it, and to make the two convertible.

Y. Yes, you have stated our next point of agreement. We both think that the national credit, represented by interest-bearing bonds of some kind, furnishes the best and the most accessible, if not the only accessible, *converse*—to coin a new sense for an old word—of our currency. We differ as to the sort of bonds, we agree that some sort would answer the purpose.

X. Yes, or I would put it in this way:—Gold we have not, and are not likely to have it in quantity sufficient for resumption. Bonds we have, which actually sell at a higher price than gold, because of their high rate of interest. Can we not secure the issue of a bond at a rate of interest so much lower than those, that it shall be worth exactly its par value in gold? And can we not make our currency convertible with this? You see I am avoiding the points on which we differ, *viz*: the method of doing this in putting the case this way.

Y. *Rem acu tetigisti*. And now for our last point of agreement—I am sorry that the list is no longer. While we differ as to the policy we propose in regard to the National Banks, we are agreed that the system needs great and thorough changes. It is one which throws by far too much power and profit into the hands of its managers. They render no service to the community at all commensurate with the advantages they derive from their partial monopoly.

To come closer to the point, the bonds of the Government, as evidenced by their high price, pay a rate of interest which is too high. Every holder of them draws a sum in interest which he ought not to receive, and would not, if the Government could—like that of France—come before the people and borrow of them at a just rate of interest. But where those bonds are held by National Banks, there is given to their holders the privi-

lege to reduplicate their value in the form of national bank notes, and to issue these in loans at the market rate of interest to their fellow citizens: i. e. to draw a second interest upon the sum for which—the stock-list being witness—they already receive too high interest from the nation. In old Venice, the bonds of the Republic, when used as the basis of circulation, ceased to bear interest, and even the intention of repaying the principal was given up. But in our later financiering, everything seems to be done in the interest of the corporations, rather than of the community. Well might Ruskin sneer at us, “There is in America no republic, no *res publica*, but only a multitudinous *res privatae*.”

X. There are—as you see—two questions involved in what you have said: the funding of the debt in general, and the demanding special terms of the National Banks in consideration of the privilege of issuing bank notes. As to the former, it is really curious that our Government cannot do what France does—cannot borrow at the rate which it ought to pay, and directly from the people. It is of no use to talk—our people are not like those of France, and will not act in the same way. Therefore, the nation has always had to go into the money-market and make there the best terms possible to it. And of course, in dealing with tens instead of with millions, it has been at a great disadvantage, because combinations are so easily formed to exact the last cent that can be got from the Treasury. That was the secret of Pitt's bad management, and of our recent imitation of it in the funding transactions of the Treasury.

But I think that you have very greatly over-stated the case as regards the advantage drawn by the National Banks from the present arrangement. Remember that they pay a tax on circulation and on deposits, which eats away all of their profit by the Treasury, except a small percentage.

Y. I cannot consent to your mentioning the tax upon deposits in this connection. It has no more to do with the profits upon both their circulation and the bonds which secure it, than have the taxes paid by the bankers upon their gold watches and their carriages. Were their circulation to be cancelled to-morrow, their discounts and deposits would still continue, and would still be as justly liable to taxation. And when the tax on circulation alone is deducted from the double profit, there still remains, in prosperous times, an amount of profit which is unreasonably great. Well, now that I

have stated the several points of our agreement, do you take the trouble to specify the points on which we differ.

X. We differ chiefly on two points—the nature of the bonds which are to furnish the *converse* of the currency, and the medium through which the currency is to be issued. You want bonds which are of a special nature, in being reconvertible (at the pleasure of the holder) into currency at the place of issue; and you wish them to bear a lower rate of interest than the rest of the debt. I want them to be not reconvertible into currency, except by the ordinary method of selling them in open market; and I think that they should bear exactly the same rate of interest as all the rest of the debt. And in fact, I would like to have these very bonds used as a leverage to fund the whole debt at a lower rate of interest. Secondly, you want to make the treasury and sub-treasuries the places of issue, conversion and reconversion, and to supplant the whole paper issue of the National Banks by Treasury notes. I want to make the banks the sole places of issue, and to substitute National Bank notes for the present volume of greenbacks, or for so much of it as the country needs. That is, I would have no paper money in circulation but National Bank notes; but I would require every National Bank to redeem its notes, on demand, by government bonds at the par value, with allowance to the bank for interest due.

Y. That's clearly put, I think. Now for some objections. You will have noticed the fact, which our resumption friends mostly ignore, that the weight of foreign, and especially of English economical opinion, is against your proposal, so far as it proposes the substitution of bank notes for treasury notes. You know that in 1844 Sir Robert Peel gave the banks thirty years' warning that the English government would take the issue of paper money into its own hands, and that the English Boards of Trade are now generally urging the government to carry out the plan; that many "advanced" English thinkers are seconding the proposal, and are denouncing the banks of issue as no better than the old private mints, set up by the Barons, in their effect on the business of the country; and that even Disraeli and his Tories are agreed that "something must be done," although they are not very certain yet how far they will go.

X. Yes, I know all that. But I am not so much put about by it as our "hard-money men" ought to be, seeing that they are generally trading on intellectual capital borrowed from that quarter. And

indeed, if we were situated as England is, I think the question might well be raised. But while we have a debt held abroad, and a depreciated currency at home, our first care must be to do our utmost to get out of the slough. When that is done, it will be worth while to consider which currency is ideally the best. If you can show that my plan gives us no great help in our present distress, then you have refuted my chief arguments for it.

Y. My second objection is one which cannot be settled in a discussion, as only the test of facts can show how much truth there is in it. I think that your plan will encounter the opposition of the most powerful interest in the business world,—the National Banks themselves; and that opposition will make itself felt, both in Congress to prevent the legislation you want, and in the money-market to make the law of none-effect if it be passed. We all know how powerful the Banking interest is in both quarters. You remember how amid the hubbub of last winter we all watched and waited to see whether the collective wisdom would say "Yes" or "No"—Contraction and Resumption, or Inflation with no intention to resume. And you remember how at last there emerged a bill which gave nothing but a bare indefinite promise of resumption in 1878, without taking any step that really looked that way. Its authors stood like the Peace-and-War Democrats during the Rebellion—they were in favor of resumption, but opposed to any measure that would really effect it. Whether the bill meant contraction or inflation no one could say. *The Nation* took a week to study it, and then from what light it had pronounced that its effect would be a slight inflation of the currency.

X. Yes, but there has been no such inflation; there has, in fact, been a slight contraction, because the banks have not been able to get their new issue afloat. I know that to be the case, because I find that they leave no stone unturned to do it.

Y. Well, to come back to that Bill—who was behind the scenes, giving a new and utterly unexpected turn to the whole transaction? Who took that occasion to settle questions which had not been mooted or discussed? The contents of the Bill tell you; it was the banks. Not content with getting an exorbitant rate of interest from the Government, and a second interest from their customers, upon their large capital, they wished to increase that capital and their circulation by more than the whole amount with Treasury

notes, without granting to the nation terms in any degree more equal. Nay, they managed, by that bill, to relieve themselves of some of their existing responsibilities, by getting rid, in part, of the requirement to hold a reserve of greenbacks for the redemption of their notes. They turned, that is, the whole current of legislation into their private mill-race, and made it grind their grist; and they will do the same again. They are simply the most powerful of the individual interests—*res privatae*—which control the national policy.

X. I think their conduct is selfish and grasping; and if there were no way of bringing them to terms, I would vote to make short work with them. But I think there is a way, and that the banks are more than ready to compromise with their opponents. Not that they deserve any praise for that either; the truth is that they are somewhat frightened, and expect an attack upon their own very existence before March next.

Y. "When the devil was sick," and so forth. But I am not sure even of the fright. What have they to fear from such legislation? To abolish national banking and leave the power of issue with the banks would be merely to divorce their power from their responsibilities. There is no likelihood that Congress will go any farther than that.

On the other hand, suppose that Congress were to vote your plan in opposition to the wishes of the banks: then the power of the banking interest in the money market would be brought into play. Your new bonds will have no special buoyage to float them, so far as I see; and if the money-lords do not approve of them, how can you force these on them? That they will not approve seems quite certain. The law as it stands enables them to enlarge their business to the full extent which you propose, and to draw the present rate of interest. You would make just two changes—you would reduce the interest on bonds now paid to the banks, and you would give the public the power to get directly at these bonds whenever it pleased. Even this would not suit; better by far put off convertibility until "the resumption of specie payments"—till the Last Day in the afternoon—and call it January 1st, 1878.

X. But by special enactment the banks might be required to take these bonds of a lower rate as the basis of their banking system. They could not well refuse, and it would be worth their while to accept bonds at a just rate of interest as the basis of issues, especially

if they were given to understand that they could not in any other way extend their circulation to the supplanting of the Treasury notes.

Y. What then becomes of the most promising feature of your scheme—the uniformity of all the bonds at a lower rate of interest, and the use of the National Banking system as a leverage to fund the whole debt at lower rates?

X. Well, at any rate, all this second objection rests—as you said at the start—on suppositions as to what people will or will not regard as their truest interest. We can only conjecture how that will turn out: but at any rate my plan has one great advantage over that to which you have given your adherence. It will help to bring home the bonds which are now held abroad, and which amount to over a thousand millions of our debt. It will in the first place cheapen government securities, so as to make them a desirable standard investment; in the second, it will create a new demand for bonds by the extension of the National Banking system; and in both ways it will bring home part of the National debt, four-fifths of which is now held by foreign creditors. I think this one of the chief considerations; for unless we can bring home those bonds, the drain of gold from the country can never be stopped, and all our earnings will be taxed for a foreign creditor.

Y. I take issue with you on both points. Firstly, our bonds are not dear at home, but only high-priced, which is a very different matter. They are valuable as bringing a high rate of interest, and lower rated bonds would be just as dear at gold par as these are at seven per cent. above it.

Secondly, if you are to retire the greenbacks, it must be by buying them up with your new bonds; *i. e.*, by throwing upon the home market about 356 millions of them for the national banks to secure as the basis of your new circulation. Now, supposing the fullest success of your scheme, it can create no new demand for foreign bonds (if I may so call them) until the national banking system represents a capital and a circulation of 757 millions. Up to that point, all you have done is to turn your greenbacks, which pay no interest, into bonds, which pay interest, and which are represented in the circulation by as many National Bank notes as the banks can get out. Now, do you really believe that our bank paper will speedily assume such proportions as to draw a very considerable sum of bonds from the foreign market in order to its further extension?

And do you not expect that before we are out of the present scare, we will be saddled with a law of limitation which will keep our circulation, and consequently the bonds on which it is to be based, at a far lower figure than this?

X. I don't want to be Spread-eagle-ish, but I do possess such faith in the present resources of the country, and their immense and speedy development, as to look for an extension of banking to a figure far beyond what you have specified. And if our contractionists succeed in passing any such law of limitation, I am quite sure that it will not stand very long on the Statute Book

On the other hand, I think that your reconvertible bond plan fails to satisfy one of the chief demands of the situation—the need of complete elasticity. You must at the very start decide how much of the national debt shall be represented, alternately, by bonds or by Treasury notes, at holder's option. Now how are you to ascertain exactly the amount needed by the country, or make the alterations demanded by our growth. You must, after all, have some one to pull the string or turn the crank; and that some one is not the entire business community, but an official at Washington. Now I want the people to manage this thing, and not the office-holders. I want it to be as self-regulative as your pumping machine; and under your plan it never will be.

Suppose again a large dealer in stocks, like Jay Gould, or it may be a large number of the Banks acting in unity, thought it to their interest to make currency scarce: will you not have simply made the Treasury an agency to lock up for them all the currency they can lay their hands on, while at the same time Uncle Sam pays them interest on their investment all the time they think fit to keep up their "corner in greenbacks" to the injury of the nation? For, of course, the currency for which they have received bonds lies subject to their order. It cannot be issued to any one else, unless he has reconvertible bonds to present for it. It cannot be "thrown upon the market" by any method, to break up the corner. Will you have somebody on hand, in such cases, to "turn the crank or pull the string" for the relief of the community? If you do, what becomes of self-regulation? The whole circulation becomes either the puppet of the politicians or the tool of the speculators.

Now by my plan the business community is free to supply itself with currency according to its needs, by enlarging or contracting

the basis of the National Banking system. Nobody could create a "corner" in National Bank notes: first, because if the banks were drawn upon for bonds by speculators, they could replace them and the currency based upon them by procuring a fresh supply from the Treasury. Not until the whole National Debt had been exhausted could any combination of speculators create an embarrassment through a scarcity of the circulating medium. By my plan, therefore, the supply is capable of indefinite enlargement on a safe basis, and without anybody "turning the crank." And *secondly*, because our speculative friends would be loading themselves with a mass of bonds which they could only dispose of again by offering them for sale in open market. They could not take or send them back to the Sub-Treasuries when the corner was over, and get their par value in currency. This would be a safe and complete check to speculative purchases of government bonds over National Bank counters. I ask your special attention to this point, as here lies the chief practical danger of the re-convertible bond plan.

Y. I think that this objection rests upon a misconception. The plan of a reconvertible bond is not bound up with the notion that it should bear any given rate of interest, or even that it should differ in any respect from other Government bonds. Perhaps the best form would be one that bore a higher rate than that originally proposed by Mr. Greeley and generally talked about, and at the same time there should be a provision allowing of the conversion of other bonds into these at pleasure. And the rate might be put so high that all the debt might be gradually funded at this new rate, and all be made reconvertible bonds at the same time.

Perhaps the safest basis would be to make bonds which bear the lowest rate of interest paid by the government, and these alone, thus reconvertible, and thus by attaching this special advantage to the lowest class alone, help on the work of funding. That is my notion of "leverage." You see, that I fully admit the advantage of one thing which your plan contemplates, *viz.* uniformity in the rate of interest, and the consequent possibility of extending the circulation at the pleasure of the people.

Not that I share your horror of the Government in connection with the currency. I cannot even understand your preference for the agency of private corporations. You have already furnished me with an argument against you on this point: you have told me of the

present activity of those private corporations in pushing into circulation paper money which is absolutely not needed—of their trying to effect an inflation in the face of the general determination to contract the currency. Now when business revives again, and the fright of the panic is at last forgotten, is it desirable to have an army of bankers still playing this same game, and carrying us back again to inflation in circulation and in prices? And just as long as private corporations are the sources of issue, will we have this steady and selfish pressure to speculative and unwholesome enterprise.

X. But National Bank notes possess one great advantage over Treasury notes—they are guarded by two securities instead of one. The Treasury note rests simply upon Governmental good faith; it has to be guarded by public assurances that there is no secret increase of the amount in circulation, and that the Government will never repudiate its debt or any part of it. The holder of a National Bank note has all this security and more, for the estates and the honor of the members of the corporation which issued it are pledged to him also.

Y. You remember the old story that one of Napoleon's generals, being asked why he did not blow up a certain bridge, replied that he had quite a series of reasons for the omission, the first being that he had no powder. Napoleon declined to hear the rest, thinking that that one was quite enough. So I think of your two guarantees—the first is quite enough. The people accept the National Bank notes with confidence simply because they know that the Treasury holds the bonds which represent them; they trust those bonds because the national good faith is constitutionally and irrevocably pledged for their redemption. What do they know or care about the "estates and the honor" of the corporation who issue them? They merely know—as the *Tribune* says—that nothing in history was ever so easy to knock over as an American bank. They never read the name of the specific bank which issued the notes; they do not care whether it is a solid concern in Rhode Island or a wild-cat affair on the prairies. All they know or care to know is just this—that Uncle Sam has made that note safe, and that there is no need of looking further.

Now put the Treasury notes on as good a footing by making them adjustable in volume and convertible at pleasure into interest-bearing bonds, and do you suppose that the people will need any guaran-

tee beyond Uncle Sam's fist? No fear of any repudiation of this part of the debt—this is the safest part of it. First, because the repudiation of the Treasury note would put money into nobody's pockets, would not relieve the people of any burden whatsoever, as these bear no interest, and no one can get, just at present, at the principal. Secondly, this is the one form of repudiation that will take money out of everybody's pocket, that has so much as a ten cent note "to his name." I have talked a good deal with the common people on the subject in both town and country. I find nobody loves your friends, the National Banks, and everybody has a good word for the greenback and the currency. They are, of course, perplexed enough by the newspapers, who tell them that all sorts of miseries flow from this popular money. They may, I fear, even be got, by force of party affiliations, to vote to get rid of it, but it will not be for any lack of confidence in it, or exuberant confidence in the banks.

X. What is to become of the banks if your plan is carried into execution? I am not what is called "personally interested" in their fate, but would like to know.

Y. I confess that that question has not cost me any sleepless nights.

X. It need not, if merely the interests of the banks themselves were at stake. But after all, they are the only means we possess for the creation of a sort of money, still more important than either gold or paper—money of account, by which all our large transactions, and many of the smaller, are effected. I fully recognize their imperfection as the instrument by which the community supplies itself with that form of money. But I see no better way of supplying it—none at least that we can immediately adopt and introduce. And, therefore, I regard anything that threatens their destruction, as threatening the community with greater evils than have or could be inflicted on it by our paper issues.

Y. I do not see that the withdrawal of the power of issue from the banks, or its assumption by the government, would in any way effect "their destruction." We have banks already which are not banks of issue. The Southwark Bank for a time gave up its power to issue notes, because it would not accept the National Banking Law. It certainly discharged all the other functions of a bank during that period, to the entire satisfaction of its customers. The London Banks, with the solitary exception of the Bank of England,

are not banks of issue; and certainly the English people do not mean to sweep away banking and money of account, and the system of discounts and deposits by which that money is now created, when they withdraw the power to issue paper money from the banks. They do not mean to destroy the whole credit system, on which modern commerce is based, and go back to where England was in 1690. And, as you very well know, the banks of Italy and of Northern Europe were for centuries banks or discount and deposit, before they became banks of issue. Indeed, the old Bank of Venice, and those of Hamburg, Stockholm and Amsterdam, never were banks of issue; and the second still exists and operates simply as a bank for the creation of money of account. Nay, more: I am convinced that the unsatisfactory state of our money of account, still more than the excess of our paper money, is the root of our financial troubles. Why not make the reform as sweeping in that quarter as in the other?

X. Because, from the very nature of the case, society cannot interfere for the regulation of this sort of money, as it can in the case of paper issues. *Caveat emptor* is the only rule that Government can well lay down. Hence it is, in times of peace, vastly inflated by the granting of discounts which ought never to have been given; and in times of stringency, it is unduly contracted by the refusal of those that ought. Its management always intensifies and accelerates the present tendency of the market, whatever that may be—hurrying us either towards inflation or towards its severe corrective, a panic.

Y. A fine picture of your private corporations, truly.

But I cannot agree with you, that society can do nothing to correct these evils. So long indeed as money of account is created by the process of discount and deposit, its creation can never be taken into the hands of the Government; for there must be the exercise of a business discretion and responsibility which Government officials cannot be expected to possess. But why could not money of account be based upon government bonds as easily as paper money, and be made convertible into them at the pleasure of the discountee? That arrangement would pay the banks, because it would give them a twofold source of profit such as they now possess, and which you would wish to continue to them with reduction of the rate. It would also tend to fix a limit to discounts, which would be a permanent gain to the business community. It would further give the

money of account thus based a certainty and a permanency in circulation even in the worst times, which would abate the violence of our panics. It would enforce a high degree of circumspectness on the part of the banks as to the paper they discounted. In a word, it would make our money of account as invariable in its value and its volume as was that of Venice and Hamburg. I do not say that it would remedy all the defects of the present system of discounts: many of them are only capable of correction through the extension of better and sounder business maxims through the mercantile community. But I think it would help us toward a better state of things.

X. It is not easy to present all the objections which would apply to this plan as soon as one has heard it. I do not think it would be at all practicable. I fear it would cripple the producing classes by reducing the amount of accommodation they would get to a minimum. But there is one that occurred to me while you were stating it. You surely do not expect our national debt to be forever large enough to furnish a basis for all the money of account the country will need. As the one diminishes, the demand for the other will increase.

Y. I certainly hope to see the day when the last cent of our national indebtedness will be wiped out, by the full and honest payment of the principal in gold. But when there is not enough left of Government bonds, the law might authorize the employment of approved stocks, or bonds of other sorts, such as those issued by our great corporations or our municipalities. But of course it would be necessary to specify by enactment the securities which would be so employed, just as the law now specifies the securities in which Trustees and Executors can invest the funds they have in charge.

X. Well, I must be going. I believe we have not yet either of us called the other a fool or a knave on the score of our differences. I fear that shows that we are neither of us sound on the financial issues of the day. I never meet one of the orthodox now-a-days without fixing my mouth to say "You're another!"

CAPTAIN JOSEPH RICHARDSON.

ON the main road leading from Phoenixville, in Chester county, to Norristown, in Montgomery county, Pennsylvania, about two miles from the Valley Forge and within a few yards of a hamlet called the Green Tree, may be seen an unpretending two-story stone dwelling of some note. It would not be likely to attract the attention of the traveler of to-day; but a hundred years ago, wayfarers who used the road stopped a moment to examine it, and perhaps envied the wealth of those who could afford to live in a mansion so spacious and imposing. Within sight the beautiful and romantic, though treacherous, Perkiomen, flows into the Schuylkill, and the rich tract of land in the angle of the two streams, upon a part of which this house stands, bore in earliest times, the perhaps Indian name of Olethgo. Ten or fifteen years before the Revolutionary war it belonged to Joseph Richardson, a man whose remarkable career, clouded somewhat by the obscurity which has gathered around it during the lapse of time, still lingers in the traditions told by the grandames of the neighborhood to wondering children, and in such contemporaneous documents as chance or antiquarian tastes have preserved. The great-grandson of Samuel Richardson, one of the earliest colonists most influential in shaping the destiny of the Province, and of John Bevan, a noted preacher of the Society of Friends, who had abandoned wealth and position in Wales, to accompany in the cause of truth his "esteemed friend, William Penn;"¹ the son of a prominent Quaker, and closely related to the Hudsons, Emlens, Morris, Rawles and others of the leading families of that sect in Philadelphia, there were few who could claim a more honorable or more virtuous ancestry. He inherited a remarkable physique from his father, of whom it is told that he could write his name upon the wall with a piece of chalk while a fifty-six pound weight hung upon his little finger; and bright blue eyes, looking forth from beneath brown locks, added adornment to a comely form. Six feet two inches in height, and compactly made, he possessed immense muscular strength, and was capable of great endurance.² Tradition says that

¹ Collection of Memorials—page 79.

² Penna. Packet, Aug. 23, 1773.

once an athlete, who dwelt in a distant part of the country, to which his reputation for prowess and vigor had found its way, made a long journey in order to challenge him to a wrestle. Richardson examined the presumptuous stranger for a few moments and then inquired along which crack in the board floor he would be best pleased to lie. The selection had scarcely been made ere the discomfited wrestler was stretched like a child in the place he had chosen. Being the oldest son, he inherited the paternal estate; and having married Mary Massey, the daughter of one of the Quaker families of the Chester Valley, he commenced life under the most favorable auspices, and for many years all things appeared to be well with him. His tastes were those of a country gentleman of his time. Sopus, Scipio, Fear-nought and other imported horses of pure blood, were to be found in his stables.⁹ An island in the Schuylkill containing 24 acres of land, a short distance above the present Perkiomen Junction, and marked upon the maps of that epoch as "Richardson's Island," afforded fine opportunities for catching the fish which then abounded in the river. The post-rider, in his weekly trip from Philadelphia to Ephrata and Swatara, brought the *Pennsylvania Gazette*, the newspaper of the day, to his home. His mien and carriage were those of a man conscious of more than ordinary power, though his manner had received tone and polish from occasional contact with life in the city, and from association with the intellectual people of the Province. Physical and mental characteristics such as he possessed, always impress the masses, and as might be anticipated, he was popular. In 1755, after the defeat of Gen. Braddock at Fort Du Quesne, the French were so emboldened by their success as to threaten the capture of Philadelphia, and the Indians extended their incursions to the neighborhood of Reading, where they killed and scalped many of the inhabitants. Rumors were rife that both Bethlehem and Reading had been burned to the ground; and the wild fear, now long forgotten, which only the torch and tomahawk could inspire, everywhere prevailed. In this time of trial and excitement women looked to Joseph Richardson as a protector. The young men of the vicinity gathered about him, and forming them into a company, he led them toward the frontier and the enemy. In 1757 he was elected commissioner of Philadelphia county. In 1765, to-

⁹ Penna. Gazette.

gether with Judge William Moore, of Moore Hall, Dr. William Smith, Provost of the University, Benjamin Franklin, the Rev. Thomas Barton, Israel Jacobs, his brother-in-law, who was afterward a member of the second United States Congress, and others, he engaged in an extensive speculation in Nova Scotia.⁴ They bought two hundred thousand acres of land there, and intending to found a colony, proceeded to lay out the town of Monckton, on the Petitcodiac river, and Francfort on the St. Johns river. In the language of the agreement, each adventurer should receive one of four town lots, sixty by two hundred and twenty-five feet in dimensions, one hundred and fifty acres in the outlying tract for himself and wife, and fifty acres additional for every Protestant person or child he took with him. The other three lots remained the property of the company; but, until that time in the future when they were to be sold at great profit, they could be used by the adventurers as gardens. Houses were to be erected, sixteen feet square and one and a half stories high. Two vessels, filled with emigrants who accepted these terms, and loaded with hoes, spades and implements of husbandry, sailed from Philadelphia. When they arrived in Nova Scotia, however, the ungrateful settlers, finding that lands were plentiful and occupants few, scattered whither they chose throughout the country, and the scheme ended in a failure. It seems strange that while the forests were still standing along the Schuylkill it should ever have been attempted. The will of Franklin contains one devise to his son William, who had been a loyalist. It is for his interest in these lands; and he explains the gift by saying, with caustic severity, that it was the only part of his estate remaining within the sovereignty of the King of Great Britain.⁵

In 1771 Richardson made arrangements for a visit to England. For several years previously the people of Pennsylvania and New Jersey had been much annoyed by the appearance of counterfeit bills, imitating so closely the currency of those provinces as to make their detection extremely difficult. They were issued in considera-

⁴Jacobs MSS.

⁵Historicus, a writer in the Philadelphia Press, says that Franklin selected Anthony Wayne as the surveyor of these lands for the company. A printed copy of the agreement with the adventurers, accompanied by a rough draft of the site, the original French deeds for the tract, and many of Richardson's MSS., are in my possession.

ble numbers, and with such dexterity that for a long time the authorities, though earnest and on the alert, were completely baffled. Finally, in 1773, a clue to the source whence they came, it was believed, had been discovered, and it pointed toward two persons, one well known to the community and the other comparatively obscure. Samuel Ford was with some difficulty captured, and having been convicted, ended his life upon the scaffold. On Wednesday, the 18th of August, the Sheriff of Philadelphia County, provided with a warrant from one of the Judges of the Supreme Court, and attended by an armed posse of resolute men, hastened with great secrecy to arrest Joseph Richardson. Tradition tells that the officers of the law surrounded his house in the night, and awoke him from his slumbers. He recognized from his chamber window some of them as acquaintances, and inviting them courteously inside, entertained them in such manner as the unexpectedness of their visit permitted. Though surprised at the enormity of the charge, he expressed a perfect willingness to accompany them, and only requested delay long enough to enable him to arrange his clothing. While, however, he was displaying the blandness and suavity of a host toward welcome guests, his Quaker wife, true to her husband, and we dare not say false to her faith, quietly escaped from the house and saddled the fleetest of his fine horses. Suddenly he jumped from a rear window, and, with needless bravado, appearing a moment afterward mounted before the eyes of his astonished companions, he shouted, "Now, come along, gentlemen," and rode away into the darkness. Startled by this unexpected *coup*, they discharged their weapons at random, and pursuit, though undertaken with vigor, was utterly vain. On the other hand, the officers made a report, the gist of which was that they beset his house in the daytime for many hours, and used every effort to take him; but that, with loaded pistols and other weapons, he bade them defiance, and kept them at bay until night, when he succeeded in eluding them, and escaped to his horse.⁶ The differing accounts bear equal testimony to his adroitness and daring, and doubtless his outwitted and disappointed antagonists stood somewhat in awe of him. Governor Penn immediately issued a proclamation offering a reward of £300 for his capture. Governor Franklin, of New Jersey, who met with

⁶ Penna. Packet, Aug. 23, 1773.

some censure from the legislature, offered £300 more, and the newspapers urged their readers and all of his majesty's good subjects to make every exertion to secure "this very dangerous man." The plantation, the island, the servants, the horses and all of his property, were seized and sold, and henceforth he was an outcast and a wanderer. Soon afterward the war commenced, and in the folk lore which has come down to us from that era Richardson appears as the hero of many a marvelous tory incident, and is described as a cherished companion of those noted Bucks county desperadoes, the Doanes, in their deeds of lawlessness and adventure. Once a man named Conway came upon him lurking in a dense wood, where stands the present village of Port Providence, which then belonged to David Thomas, the husband of Richardson's sister and the grandfather of the author of Lippincott's biographical dictionary. He compelled Conway to bring him some food and by threats of death if his whereabouts should be divulged enforced secrecy. A farmhouse of the neighborhood has a portion of the garret separated from the rest by a plastered partition, forming a false chamber without windows; and in this dark receptacle, called still by the country folk "the Richardson hole," it is said that he and the Doanes used to hide away their booty. Once he went to Bromback's tavern, in Chester county, and laying a loaded pistol within reach, ate a meal while the cowed bystanders looked on without daring to interfere. At another time, being closely pursued by a body of horsemen, among whom, we are told, were several of the Vanderslices, he rode across the country to the Delaware, and, nothing daunted, plunged into the river. His horse, fatigued by a long course, struggled ineffectually against the waves; and so leaving the animal to its fate he threw himself from its back, and swimming across to the Jersey shore again escaped. "But the fox must sleep sometimes and the wild deer must rest," and February 24, 1777, a vigilant individual wrote to inform the Committee of Safety that the "famous or infamous Ritchardson" had been seen in Philadelphia. Three days later General Thompson, Major Butler, and some other officers, captured him between the city of York and the Susquehanna river, and conveyed him to Lancaster, and there had him securely confined in the jail. His good fortune, however, did not yet desert him; and, strange to relate, either because of his innocence or shrewdness, there seems to have been an entire lack of evidence against him.

The mittimus in the first instance charged him with being a tory; but this accusation was abandoned, and that of forging and counterfeiting substituted. Having demanded and received from William Atlee, chairman of the Committee of Lancaster County, a certificate to the effect that there was no proof of his being in league with the enemy, he wrote concerning the other charge a bold letter to Colonel Timothy Matlack, Secretary of the Council of Safety, saying that the reports against him had been circulated by ill-disposed persons, and that before the war he had gone without avail to Philadelphia county to be tried.⁷ He intimated that his confinement would be of disadvantage to the Continental cause, since, if continued, his son, who held a commission in the service, would be compelled to resign; and he appealed to Matlack as an old friend to procure an early disposition of the case. Atlee, whom the Council authorized to act in the matter, refused to discharge him upon bail, holding that although no evidence of his guilt had been produced, the proclamations of the Governors made upon affidavits raised a very strong presumption of it. In June Daniel Clymer renewed the application to the Council for him, and he was then liberated after a confinement of about four months. Three years later, on the 6th of March, 1780, he was again arrested upon a warrant from Joseph Reed, president of the Supreme Executive Council, issued by their direction, and thrown into jail in Philadelphia. The old accusation of counterfeiting was renewed, and in addition it was declared that he was disaffected to the cause of America, and his going at large was injurious to the interests of the good people of the State.⁸ It must be admitted that his incarceration upon charges vague and seemingly impossible to prove, has much the appearance of persecution. He immediately presented a petition for a hearing. The Council submitted him to a searching examination, remanded him to jail, and at the expiration of two months ordered his release "on condition of his leaving the State of Pennsylvania, and going to some other part of America not in the possession of the enemy, not to return to this State without leave." If he obeyed these requirements it was only for a short time, for he had returned to his old neighborhood in 1782, and there, before 1798, he probably died.⁹

⁷ Penna. Archives, Vol. v, pages 239, 248, 249, 254.

⁸ Colonial Records Vol. xi, pp. 216, 226, Vol. xii, pp. 270, 272, 273, 339.

⁹ Jacobs MSS.

The latter part of his life seems to be involved in impenetrable obscurity, and doubtless his relatives and friends were loath to renew the recollections of a career which, though it opened with much brilliancy, was afterward tarnished by suspicion, if not stained with crime.

Was he guilty? A hundred years have rolled away, and who can answer now a question which was not determined then? While the intelligent wife of an English baronet can recognize the coarse features of an Australian butcher as those of her own educated and refined son; while thousands of people believe, and scores of them declare upon oath, that an unfortunate convict is the heir of one of the oldest Saxon families of the realm, who can solve the mysteries of the past? His long flight lends color to the accusations, and his subsequent readiness to meet his accusers has the appearance of innocence. If blameless, he was the unhappy victim of one of those webs of circumstance which are sometimes woven about even the purest of men, checking their usefulness and darkening their fame; and if guilty, strength of intellect and craft enabled him to conceal the traces so effectually that the keenest of his enemies were powerless to discover them. In reaching a decision it should not be forgotten that whatever were the virtues of our revolutionary grandsires, lenity toward those suspected of loyalty was not one of them; and the repeated arrests and imprisonments of Richardson show what would have been his fate could the proof have been obtained. We commend the study of his life and character to the coming American novelist, who will fix upon the crests of our own Alleghanies some of the halo which since the beginning of the century has radiated from the highlands of Scotland.

SAML. W. PENNYPACKER.

THE FALLACY OF THE GOLD STATEMENT.

THE public attention has recently been largely directed to the pending questions as to the stock of gold remaining in the country, and as to the possibility of an accumulation of coin sufficient to replace the currency issues of the government and the banks. The several gold statements of the Treasury and of the commercial

authorities are eagerly scanned, and in most cases they are necessarily accepted as conclusive. Balances are reported of large amounts, so large that the impression is general that gold to the amount of eighty to ninety millions of dollars now lies unused in the several banks and depositories. Vague estimates of commercial writers are also made, in which it is generally assumed that a stock of about a hundred and fifty million dollars of coin exists, all of which would be available for currency if the circulation of notes was sufficiently restricted.

These various statements are, we venture to say at the outset, subject to great allowances and abatements, and in the form they have, or with the meaning attached to them, they are essentially fallacious and misleading. They convey an impression entirely erroneous, and one which is now leading to the most unfortunate consequences. The actual stock of gold is less than half that appearing by these statements to be held by all the custodians accredited with it. If this is the fact, is it not a very grave and important duty to require a full analysis of the reports now given to the public, professing to show what amount of gold is actually held by the Treasury and the banks?

By the Act of March 3, 1863, now section 254, Revised Statutes, "The Secretary of the Treasury is authorized to receive deposits of coin and bullion with the Treasurer, or any Assistant Treasurer of the United States, in sums of not less than twenty dollars, and to issue certificates therefor, in denominations of not less than twenty dollars each, corresponding to the denominations of United States notes." And these certificates "may be issued in payment of interest on the public debt," or may be used in any manner as the equivalent of gold coin, being "receivable at par in payment of duties on imports," and delivered when gold is sold from the Treasury. These quoted stipulations are in the text of the act itself, and the further stipulation is made in it, that "they shall not at any time exceed twenty per centum beyond the amount of coin and bullion in the Treasury." Of course, therefore, the amount of such issues held by the treasury, or by those to whom they have been paid out as gold, may reach the full amount of gold and bullion held by, or paid into the treasury as the basis of their original issue, and twenty per centum in excess of this amount. The law permits the entire stock of coin and bullion passing through the Treasury to

be duplicated in the form of these gold certificates, and twenty per centum of this stock of actual coin and bullion to be used for any purpose without cancellation of the corresponding certificates. Twenty millions of gold and silver coin and bullion held originally by the Treasury, and twenty millions more of either deposited by persons desiring to convert the same into certificates, will therefore produce forty millions of gold notes or certificates; and by subsequent use of twenty per centum of these forty millions of coin and bullion, there may remain in use seventy-two millions of so-called "coin," namely, forty millions of certificates counted as coin, and payable as well as receivable as such, and thirty-two millions of real coin or bullion, which bullion may be silver bullion.

This was certainly a most effective law to secure the complete utilization of coin and bullion. Not a dollar's worth of either, whether of gold or silver, need after its enactment remain idle in any sub-treasury, any bank, or in the hands of any individual owner. It could be deposited safely and used immediately, the depositor profiting by the full value, and the Treasury able to use twenty per cent. more than it was required to hold of coin or bullion to redeem them if presented. The result has been the most extreme economy in the keeping of actual gold. Banks and bankers have reduced their stocks to the lowest figures; the larger share of the banks reporting little or none in their regular statements, and the strongest of both banks and bankers holding but a few thousand dollars to meet emergencies. No distinction being made between actual gold or bullion and what are called gold certificates in the New York bank returns, it is impossible to say how much of the minimum of seven and a half millions of specie reported to be held by them just previous to December 1st, 1875, was in the form of certificates. And now, when they report, on January 1st, 1876, that they hold \$20,233,300 in specie, none but themselves can say how much is really gold and silver.

The extent to which what are called "gold certificates" are actually employed in what are reported as gold payments is much greater than is supposed. In the payment of duties on imports at New York they constitute four-fifths to nineteen-twentieths of the sums paid. A fair illustration of their use is afforded in any week's return, the average being \$10,000 to \$20,000 in gold daily, to \$250,000 or \$400,000 of "gold certificates." On September 11th,

1875, \$17,000 in gold was paid for duties, and \$328,364 in gold certificates. On October 22d, \$18,000 in gold, and \$275,000 in gold certificates; and on January 6th, 1876, \$20,000 in gold to \$416,174 in gold certificates.¹

The average of receipts, in actual gold, for duties at New York, for the last ten days of December, were but a fraction more than ten thousand dollars daily.

It is also well known that at the periodical sales of gold from the Treasury, certificates are delivered almost exclusively. In very few instances is anything other than certificates desired by bidders, and it is understood that the sales are to be so adjusted. Payments of interest on the public debt are, by law, provided to be made through these certificates, and though gold may be drawn for them, if needed for remittance, it is usually done by others than those to whom the interest is paid. It is, of course, to be expected that every advantage accruing to individuals or to the Treasury, from the law authorizing the use of these gold notes as currency, will be made available. They form, as we have shown, much more than nine-tenths of the money used in paying duties at the Custom House, and at least an equal proportion of payments out of the Treasury—since the Treasury gets its gold only from customs and from special depositors desiring certificates.

A careful search for gold, outside the Treasury vaults, fails to disclose any large amount. The banks hold but a few millions, and in New York the sums reported as specie are undoubtedly chiefly "gold certificates"—issued originally, perhaps, on deposited silver bullion. On October 1, 1875, the National Banks of the city of New York held but \$4,956,624 in specie; and the State Banks of the same city, on September 18, held \$788,100 only. The total, reported by all the banks in other cities, about that time, was less

¹For the week ending Sept. 11, 1875, the total of payments for duties at New York was \$2,650,032, of which \$130,000 was gold, and \$2,519,032 certificates. Other weeks of 1875 were as follows:

Week ending Oct. 23d,	\$120,000 gold;	\$1,901,237 certificates.
“ Dec. 11,	113,000 “	1,572,391 “
“ Dec. 18,	97,000 “	1,175,162 “
“ Dec. 24, (5 ds)	51,000 “	755,732 “
“ Dec. 29, (5 ds)	66,000 “	759,263 “
“ Jan. 8, 1876,	131,000 “	2,420,446 “

In former years the proportion was almost equally large; showing the very large constant use of this form of currency since its first authorization.

than a million of dollars, exclusive of California. Of the twenty-seven banks of Philadelphia, nine reported no specie at all on October 1, 1875, or January 1, 1876; and the average of specie held by them at the first named date, was but \$4,500 for each bank, and for the last named an average of \$15,000 each. The average held at the same dates, in the city of New York, was \$105,000 each, for sixty banks, on October 1, and nearly \$350,000 each on January 1, 1876. A sudden increase at the close of the year, in both cases, represents interest paid out, by the Treasury, on United States securities held by the banks, which will be exported, if coin, and if in gold certificates, will go into circulation immediately.²

It is not easy to trace the so-called "gold certificates" from their issue to their cancellation, but it appears that all the silver deposited at the several treasury offices, is immediately duplicated in this form. During December, 1875, it was reported that a large quantity of silver bullion—several tons weight—was deposited at the New York sub-treasury office, and during that month, also, the reported aggregate of certificates, held by the Treasury, rose from \$12,000,000 to \$31,198,300; the reported "coin balance," exclusive of these, remaining almost unchanged at about \$48,000,000. If the Treasury itself, on January 1, held \$31,200,000 of these, and the banks had ten or twelve millions of them, with considerable amounts in daily use, in payment of duties, what is the probable amount of the whole issue in use, and uncanceled?

We might and perhaps should next take up the supposed stocks of gold and silver held in California, to see what addition should be made from that source; but the statistics are not at hand, nor are they altogether trustworthy, as usually quoted. It has been the habit for some years past to promptly export, either to New York or to England, every dollar of coin or bullion produced in California in excess of the most urgent wants. The producers of both gold and silver cannot afford to hold it unused, and they send it by express at once for deposit at New York, and representation by certificates that can be used. When the late panic came at San Fran-

²The Philadelphia banks, 27 in number, reported, on October 11, 1875, an aggregate of \$119,011, in specie; and the New York banks, 60 in number, reported, on October 16, \$6,389,200, in specie. These were the lowest aggregates in each case, and a slow increase then set in, attaining twice as large sums before the close of December.

cisco as the result of the failure of the Bank of California, all the banks and bankers were bare of gold. Twice they were compelled to beg special returns of gold from the East, through the assent of the Treasury, to keep themselves from breaking under very moderate calls for deposits. It is safe to assume that both the bullion and the coined product of the mining States does not remain unused any longer than is necessary to transport it by express to the monetary centre at New York.³

The reserved stock of gold or silver in California and Nevada is at least not large. In fact, it is less than the business exigencies of that part of the country constantly require, as a protection against panics. Adhering to the gold basis, as they do, their reserve must be large, much larger than banks in the eastern cities require, or they are at the mercy of any temporary disturbance of credit, and consequent demand for deposits.

In reviewing the current belief as to the stocks of gold and bullion held in the country, the conclusion is irresistible that there is at the utmost not more than half the coin and bullion that the gold statements, as they are called, represent. If the gold certificates held by the United States Treasury to the amount of \$34,000,000 during the first ten days of the current month, January, represent coin in the Treasury, what is the actual stock of gold, and what

³The promptness with which the silver product is now forwarded to New York is shown by the following citation of receipts of silver on certain days of December last, at the U. S. Assay office:

December 13.	Received one third of a ton of silver on deposit.
“ 16.	“ one-half “ “ “
“ 20.	“ three-quarters “ “ “
“ 21.	“ one-half “ “ “
“ 23.	“ one ton and a quarter “ “
“ 24.	“ one-half ton “ “
“ 27.	“ one ton “ “
“ 29.	“ one-half ton “ “
“ 30.	“ two-thirds “ “ “
January 3, '76.	“ one ton “ “
“ 5.	“ one-third ton “ “
“ 6.	“ one ton “ “

The whole amount of silver so reported as received from December 13 to January 6, is therefore eight and one-third tons; the value of which, at the ruling price per ounce, is nearly \$350,000.

the stock of silver? How much actual gold do the banks hold, and how much of gold certificates counted as gold? In fact, the evidence is strong, that less than twenty millions of gold exists in the country in any form, and of silver coin and bullion, about twenty millions in value.

NEW BOOKS.

NORSE MYTHOLOGY; OR THE RELIGION OF OUR FOREFATHERS. Containing all the Myths of the Eddas, systematized and interpreted. With an introduction, vocabulary and index. By R. B. Anderson, A. M., Professor of the Scandinavian languages in the University of Wisconsin. Author of "America not Discovered by Columbus," "Den Norske Maalsag," etc. 8vo. Pp. 473. Price \$2.50. Chicago: S. C. Griggs & Co., 1876.

Professor Anderson is, to borrow his own phrase, a "true son of Thor," impatient of the long domination of southern thought in art and literature, and anxious for a revolution which shall establish a school of true northern art. Too long, he thinks, we have worked after classic models, and have chosen subjects for pen or pencil from the mythologies of the south of Europe, to the almost entire neglect of the myths and sagas of our own Gothic race. This is certainly not because the northern mythology is lacking in subjects worthy of the best efforts of poets, painters or sculptors, but is due to a system of education which shapes our tastes in a foreign mould, and allows us to grow up in lamentable ignorance of the really noble and beautiful productions of the genius of our own forefathers. Accordingly, Professor Anderson treats his subject in the main from the stand-point of art. His introduction, which fills about one third of the whole book, is devoted to a general discussion of the beauties of the mythology of the Eddas—which contain the largest fragment preserved to us from the mythology once existing throughout the entire north of Europe—and of the influence which this mythology has really, although silently, exercised over the spirit of modern Anglo-Germanic literature; and lastly to a comparison between it and that of the Greeks and Romans, to which he unhesitatingly gives it the preference. The writer does not attempt to conceal that his high admiration of the Norse myths has its source in the fact that they embody the father-faith; and although, without doubt, his leading propositions will meet with general assent, a perceptible effort to make the most of his subject will, we think, dampen the interest of most of his readers in this part of his work.

The remaining two-thirds of the book is an admirably digested account of the Norse myths, accompanied by an exposition of their

origin and meaning according to the latest results of comparative mythology. Professor Anderson claims for this part of his work, and we think rightly, that it is "the first complete and systematic presentation of the Norse mythology in the English language." Besides giving his own rendering of the myths, he has made frequent extracts, some of them quite long, from the Elder or Poetic Edda; so that his readers are not only able to check his own version by a reference to the original source of information, but can form some idea of the character of this quaint and interesting work. His exposition of the myths, when we make allowance for the difference of opinion which still exists among the best mythologists respecting minor points, is all that could be wished. The old historical interpretation, which was formerly in especial favor among writers on the northern mythology, has been set aside, and in its place is presented the now almost universally accepted tenet that all mythology has its base in physical nature. Thus Odin, formerly held to be an old king of the Goths, is the god of the firmament, corresponding to the Zeus of the Greeks and the Dyaus of the Hindoos; Odin's one eye is the sun, his broad hat the expanse of the heavens, and his eight-footed horse, Sleipnir, the winds, which blow from eight quarters of the heavens. Thor is the thunder, and his hammer Mjólnir the thunderbolt. Loki is fire, Balder the summer sun; and the Giants, with whom Thor is eternally at strife, are personifications of frost, ice, snow, storms and other like agents who seem bent on the overthrow of nature and the gods. Out of the contemplation of these objects arose mythology; yet, a point quite too often overlooked, they are only the crude material of which myths are made. "The physical interpretation alone," says Professor Anderson, "is the shell without the kernel. Nature gives us only the source of the myth; but we want its value in the minds and hearts of a people in their childhood. The touching gracefulness of Nanna, and of Idun reclining on Brage's breast, was not suggested by nature alone, but the pictures of these reflect corresponding natures in our ancestors. To explain a myth simply by the phenomenon in external nature (be it remembered, however, that man also constitutes a part of nature) that suggested it to the ancients, would be reducing mythology to a natural science." It is, indeed, because the history of a system of mythology from its origin, now that its mode of development is beginning to be understood, is in a great measure the history of the intellectual growth of a people, that mythology has become, next to language, the most valuable monument of a prehistoric age. Of all the Aryan systems, none has so deep an interest for us as that of our own branch of the Aryan family. We trust, therefore, that this work both will be instrumental in turning attention in this country to the hitherto neglected field of northern antiquities, and will meet with a reception which will encourage its writer to add to the list of his already published works on Scandinavian history and literature.

THE HISTORY OF MY FRIENDS. Home Life with Animals. Translated from the French of Emile Achard. Illustrated. New York: G. P. Putnam's Sons, Publishers, 1875.

We are disappointed in M. Achard's book, as the illustrations had led us to expect something entertaining for children. It cannot be called instructive, for he tells us nothing of the habits of his friends, but only draws upon juvenile credulity such drafts as a bear wagging his ear in sign of recognition; of a lion playing sailor; and of a cat who, having disposed of the mice in his garret, carries in field-mice in order to avoid the discomfort of going out in all weathers for his rations, to re-stock it, and thus, by a prudent moderation of appetite at first, establishes a permanent supply of fresh meat. If there were the slightest chance of children becoming interested in these remarkable intelligences, it would be harrowing to their feelings to be called upon to mourn the violent death that overtakes most of them before their histories end. As it is, we expect the constantly repeated fact will only prove monotonous. The translator may be in fault; but it seems hardly reasonable to expect even the model boy who goes to a kindergarten, and knows his A B C's straight through and skipping about, to understand why a cat should "scorn to be thought a parasite," or why a garden is the "legitimate domicile" of an ostrich; or that he should have a sufficiently classical turn of mind to appreciate the comparison of a rabbit drawing a wagon to Hippolyta on his chariot. M. Achard should not write another book for children until he knows something about the animal with two feet and no feathers.

THE GOLDEN TRESS. Translated from the French of Fortune du Boisgobey, author of *Les Collets Noirs*, etc. Cloth. 16mo. Pp. 420. Price \$1.50. Philadelphia: Claxton, Remsen & Haffelfinger. 1876.

This is a tale of plots, caverns, and the new ingenious sensation of parlor execution by steel-doors. The scene is laid in the best policed city of the world; and as an incident a Parisian detective is immured by a Russian in a dungeon, of which the roof is lined with guns; by the overflow of the Seine, which breaks down the walls, he is floated off and comes to anchor in a sewer. The extravaganza ends happily for justice but not in good and legal order: the crooked paths are made straight, the villains meet their deserts by explosions of gun-powder, by poison, and two by death in the quicksands, which latter scene is drawn with power. Why this book should have been chosen for translation, must be a puzzle to those who know the beauty of the many French stories left untouched; but the translator's work is good, and in the selection of another subject we wish him better fortune.

PRETTY MISS BELLEW. *A Tale of Home Life.* By Theo. Gift. Leisure Hour Series. Price \$1.25. New York: Messrs. Henry Holt & Co.

This is one of the best novels that has appeared this season. If more like it had been written, the publishers would not have been reduced to covering their holiday counters with reprints of old books. Genius has evidently been at greater straits than trade. The author has told very cleverly a story of English home life, with a heroine modern, independent, thoroughly natural and without a tinge of fastness. It is a capital study of character, and if it convinces any would-be heroines that everything that is natural in character is certain to be interesting, it will add some tone to the great army of masculines who are searching for home life of the right kind. The readers aimed at would probably observe that the hero is quite a useful example of how not to do it for men. He is the stereotyped Englishman, delights in his roughness, asks the girl he loves to marry him as he would his tiger to bring him his boots. It is needless to reply our conviction that the hero, when introduced into the sphere of home life, will adorn it as all English husbands do. But readers of both sexes will agree that *Pretty Miss Bellew* is charming enough to make them regret having finished the book.

NOTES OF TRAVEL IN SOUTHWESTERN AFRICA. By C. J. Andersson, Author of "Lake N'gami," "The Okavango River," etc. 12mo. pp. 318, price \$2.00. New York: G. P. Putnam's Sons.

This book relates the mournful ending of a brave career. In the list of African explorers Andersson deserves honorable mention. Swedish by birth, but English on the father's side, he had a strong natural predilection for the life of a hunter and a traveler in wild lands. In early manhood, at the age of 22, he set out with Mr. Francis Galton, in search of a large lake believed to exist in the interior of Southern Africa. They failed to find it, but a subsequent journey by Andersson alone was more successful, and in "Lake N'gami" he gave the history of both expeditions.

After this he settled in Africa, near the West coast, several hundred miles north of Cape Town, encountering various vicissitudes of fortune as superintendent of a mining company, trader, etc.; and at the age of forty, after years of toil, found himself a ruined man, shattered in health, and a cripple. His experience was like that of many other civilized men who have settled among savages; and from it and those similar, one is often tempted to draw the deduction that those who treat the savages best fare worst at their hands, and that it is often hard to say which is most to be feared, their friendship or their enmity. The only person spoken of by Andersson who seems to have been as unfortunate as himself was a venerable missionary, who for years had labored among the aborigines, and

escaped being murdered, to die, after losing everything, from the effects of fatigue and suffering. This good man had been sent out by a German Society. Many valuable lives and much labor would be saved if the pious delusion in regard to "carrying the Gospel to the heathen," could be dispelled. Andersson's commentary is the most forcible we have ever seen as to this matter. "I have often put the question to missionaries, as I do now to every intelligent reader, how is it possible to make a degraded savage—a being very little elevated above the brute creation—understand and realize the mysterious doctrines of Faith, Justification and Salvation?" First, it is necessary, he thinks, to teach him to be industrious, cleanly and honest; to instil into him the elements of civilization; the usual methods of the missionary, in the opinion of the author, result in adding hypocrisy to the other vices of the savage.

Broken in health, but not in spirit, the intrepid explorer set out on his last journey, an expedition to the Portuguese settlements far to the north; but the hand of death was upon him, and after enduring frightful sufferings he died in the wilderness, having failed to reach his destination. His journal was preserved, and the record of the last days reminds the reader forcibly of Livingstone's death under circumstances very similar.

It should be remarked that this book is edited by a friend of Andersson's, whose name is modestly withheld, but who has well performed his task. The principal interest of the work is found in the heroic struggle of the narrator against the severest ills which can afflict humanity, and the indomitable courage and cheerfulness with which he bears up against poverty, bodily suffering and separation from wife and children.

There is some natural history, for the most part, save to a naturalist, uninteresting; some hunting stories which, though more so, are not very remarkable; but the observations on the various tribes, Hottentots, Namaguas and others, their habits and manner of life, display much insight and power of graphic description. The style is clear and animated, and the book pleasant reading; but apart from our interest in Andersson himself, it has rather too much the appearance of a collection of odds and ends of materials, the best part of which had been used in other works. The book is published in a very attractive shape.

BOOKS RECEIVED.

The Review of General Sherman's Memoirs Examined, chiefly in the light of its own evidence. By C. W. Moulton. Price 50 cents. Cincinnati: Robert Clarke & Co., 1875.

My Husband's First Love, (Gina Montani.) By Mrs. Henry Wood. Price 25 cents. T. B. Peterson & Bros., Philadelphia.

The Twin Lieutenants; or, the Soldier's Bride. By Alexander Dumas. Price 50 cents. T. B. Peterson & Bros., Philadelphia.

History of the Army of the Cumberland, its Organization, Campaigns, and Battles. Written at the request of Major General George H. Thomas, chiefly from his private military journal, and official and other documents furnished by him. By Thomas B. Van Horne, U. S. A. Illustrated with Campaign and Battle Maps. Compiled by Edward Ruyer, late Supt. Top. Eng. Office, Hd. Qrs. Dept. of the Cumberland. 2 vols. and Atlas. Cincinnati: Robert Clarke & Co.

The Reading Club and Handy Speaker. Being selections in prose and poetry, serious, humorous, pathetic, patriotic and dramatic, for readings and recitations. Edited by Geo. M. Baker. Boston: Lee & Shepard, 1876.

In Doors and Out; or, Views from the Chimney Corner. By Oliver Optic. Boston: Lee & Shepard, 1876.

The Asbury Twins. By Sophie May. Illustrated by L. B. Humphrey. 16mo., cloth, Pp. 374. Price \$1.75. Boston: Lee & Shepard. [Claxton, Remsen & Haffelfinger.]

One Hundred Years a Republic. Our Show; a humorous account of the International Exposition, in honor of the Centennial Anniversary of American Independence. Price 50 cents. Claxton, Remsen & Haffelfinger, 1876.

Stories from the Lips of the Teacher. Retold by a Disciple. 16mo., cloth, pp. 193. Price \$1. New York: G. P. Putnam's Sons, 1875.

A Text-book of Human Physiology; designed for the use of Practitioners and Students of Medicine. By Austin Flint, Jr., M. D. Illustrated by three lithographic plates and three hundred and thirteen woodcuts. New York: D. Appleton & Co., 1876.

Among my Books. By James Russell Lowell. Second series. 16mo., cloth, pp. 327. Price \$2.00. Boston: James R. Osgood & Co., 1876. [Porter & Coates.]

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MARCH, 1876.

THE MONTH.

THE opening of Parliament was less satisfactory in one respect than Englishmen generally had expected. The announcement that Her Majesty would open the session as she used to do and ought generally to have done, had been hailed with great delight, not only by the tradespeople, to whom it was a promise of a revival of the court festivities, which means business for them, but by shrewd watchers of public opinion among the friends of the English system who had long seen, with anxiety, the actual effect upon it of the abdication by the queen of all her duties. The fact is that Her Majesty has so persistently secluded herself from the loyal world, since Prince Albert's death, and so stubbornly declined to discharge the only remaining duties of her office, that she has impaired the old-time feeling of loyalty which in earlier generations was so strong among her people. A generation has grown up out of childhood into the active duties of life since she appeared before her subjects' eyes as a real queen and these are not the days when superstition clings very faithfully to old ideas. Her Majesty has become a sort of myth—a creature spoken of in the court journal, believed to exist at stated seasons at Osborne or Balmoral and known to have been present on the Alberta when it sank the Mistletoe—but what she was and what she did few could understand and fewer tell. *Stat nominis umbra*, and both her name and office seem to throw a smaller shadow now-a-days than they used to do. When

therefore it was announced that she was about to resume her place and duties, men rejoiced and London's loyal heart throbbed with an honest thankfulness. But the result was not satisfactory. She came, but not in state. She opened the session by her presence, but would not read her speech; and the end was a sense of disappointment, which crops out in the journals and is shown in many ways. There remain but few duties to the monarchy of England. Politically, as we know, the sovereign is sovereign no longer; but the queen is the Head of the Social Life and the Fountain of Honor. She can control the morals of her court, and temper or not the tone of its society. Victoria did a noble work in the earlier days of her long reign, and renewed the life of the monarchy in English hearts. She can hardly afford to throw away her influence or withdraw herself, while she enjoys the privileges, from the discharge of the chief duties of her place. Her throne rests on the faith and affection of her people, on a faith that is constant, on an affection that still is strong. But the one may be shaken and the other loosened, and neither can be fed and kept alive only (through a disheartening present into a doubtful future) by the memory—however pleasant—of the past.

THE Senatorial elections seem to bespeak some stability for the Republic. The newspapers give various accounts and different classifications of the successful candidates but we can perhaps be certain that a majority of the new Senate will be Republican. The distinctions between French political parties are not, like our own, clearly marked. There are no Whig or Tory, Liberal or Conservative, Democratic or Republican parties in France. No two journals seem to classify the partisans of their Centres or Lefts and Rights alike and so of course, none agree about the Senators. One puts the "Conservative Republicans" at 170. Another divides them into "Republicans" and "Conservatives" and says that the former number about 100. This one includes the Radicals among the Republicans, that puts them in a class by themselves. "Monarchists" are, in the account given by a leading paper, all who favor a monarchy, Legitimists, Orleanists, Bonapartists. According to another, the Orleanists as a party do not exist, and the Legitimists are included with the Radicals, probably as irreconcilable like them and fit to be tied up in a bag together with them. The experiment of this new Senate for life will be interesting to watch.

CASTELAR and one other are the only two Republicans by profession elected to the Spanish Cortes. The unknown other is probably not, like Castelar, a Republican by conviction and on principle. The war in the North still continues with varying success, and the Carlists seem to the observer from a distance to be as busy as ever. If King Alfonso has in him any stuff at all, he has not shown it yet, and it can hardly be expected that he will prove himself other than a weak and, it is hinted, vicious boy. He comes of a bad stock, run out and exhausted. When the barrel runs as low as it has done in the case of his family, little but sediment remains.

THE reports are contradictory about Herzegovina, Count Andrássy and the Porte. It has been said that notwithstanding the acceptance of the Austrian note, the Sultan is going on building his expensive mosque and bothering himself very little about the northern troubles. The insurgents, too, have gained ground so fast that they are growing more and more importunate in their demands. The fire which a bucketfull of water would have quenched may, after a little, resist a torrent like Niagara; and this Herzegovinian flame has seized on dry material in the midst of much that is inflammable. Montenegro is hardly to be kept cool. Serbia and Bosnia are hot already. It is said that Austria has three hundred thousand troops massed near the frontier. La Scandale commence. It was said in the Levant, in '67, when the Cretan Revolution was at its height and seemed to have a chance of success, that His Imperial Majesty Abdul Aziz inquired one day what Crete was, and where and what the trouble meant. Unusual as such a natural desire for knowledge was, his majesty's ministers were quite prepared for it, and comforted him by producing a map on which Crete was a tiny rocky islet in a distant sea, and assuring him that the trouble was not of the slightest consequence. They were successful then; perhaps they have tried the same plan now. It would certainly be easier to follow a similar course with the imperial mind than to try to explain to it the origin and rise of these disturbances among the Slaves. The Herzegovinian question is after all only a little more comprehensible than the Schleswig-Holstein question, of which Lord Palmerston said that he and Mr. A., of the Foreign Office, were the only men that ever understood it; and Mr. A was dead, while he himself had forgotten all about it.

It is so much the fashion to criticise public men unfairly, and form opinions of them on insufficient knowledge, that public journals cannot be too careful lest they do injustice. The reports about the American Minister in England have, however, taken a different shape now, and assume the form of charges which affect not only himself the Administration which sent him to London, or more correctly which has kept him there, but also the honor and reputation of the American name. One might excuse the unfortunate business about the "Poker Rules," which almost became a scandal last summer, and accept General Schenck's explanation of the matter, although he might regret the occurrence; but it is hard to find satisfactory his defence in the matter of the Emma Mine. Most men who know the General or were familiar with his course in Congress felt that General Grant, in selecting him as our Representative in London, had spoiled a useful Congressman to make an inefficient Minister. Not that he did not have ability. General Schenck had often proved that he is a man of parts, but neither his tastes, his experience nor his training, if the last he could be said to have had, fitted him to go to England. We have had there John Adams and J. Q. Adams, John Jay and Richard Rush, and in later times Mr. Dallas, Mr. McLane, Mr. J. R. Ingersoll, Mr. Everett, Mr. Bancroft, Mr. Buchanan, Mr. C. F. Adams and Mr. Motley, some of whom were statesmen and men of ability, and all at least "masters of deportment"—which General Schenck is not. Now that the cable is laid and the the Secretary of State insists on conducting negotiations himself, we do not need an acute politician at St. James's, but we do a gentleman. Of all things we want a man whose life and character, whose walk and works, will elevate in England the reputation of Americans. It is a serious injury to us as a people, more serious than seems at first, though we cannot measure it in money, when an American representative instead of winning confidence creates distrust, instead of reflecting honor brings us into shame. Now that legal proceedings are commenced in London, all men should wait and hope that the American Minister will prove himself duped and not dishonest. But his usefulness in England ceased with the first suspicion, and he ought to have been recalled without delay. Every day that he has remained since then has lowered our reputation, lessened our influence, done the Administration infinite harm and the General no good. His tardy resignation, now too late, (it is rumored) is at hand. Let

us hope that the President will give us, for the twelvemonth of power that remains for him, an intelligent, high-toned, cultivated American—of whom there are many, if he knows but few.

SPEAKING of Schenck reminds one that his last apologist is dead. Reverdy Johnson had outlived his activity as a politician, and his fame as a statesman belonged to an earlier day. But he was a great lawyer in every sense of those words. In Constitutional law he was an authority of the first rank, and in all branches of the science his name was honorably known. He was more than a lawyer, too, and more than a statesman. As a man he had won a reputation for honesty, sincerity and patriotism, which without his intellectual gifts would have made his name revered. In all the relations of life he bore an honored character, and his loss is felt by thousands who never saw the man.

ONE of the many foolish things which the Democratic party has done and which occurring all the time make its longevity partake of the miraculous—was the appointment of the individual Hambleton, whom the *Tribune* has just driven out of the clerkship of Ways and Means. Of course it is not fair to call a party to account for the appointment of an obscure man to a two-penny office. But when a party (or an individual) makes great professions of honesty, and comes into office as the champion of Reform as the Democrats did in '74, it must not expect to do badly in any instance, whether from stubbornness or want of knowledge, without encountering indignant criticism. The man's unworthy history must have been known to those who appointed him clerk of the Ways and Means Committee, or should have been if it was not, and they and their party are responsible. Even if the majority of the House had been active, intelligent, industrious and large-minded in its three months session, such acts as this would negative much of its influence with the men to whom party name is nothing and party organization only a means—who seek high and patriotic ends, and care little by whom they are brought about, or how, if only honorably. The Democratic party has an especial gift—it is so perfect that it can come only from the gods—of inspiring distrust in its sincerity and doubt of its capacity to govern; a gift of doing or saying something which convinces the people, even in the act

perhaps of placing the wheel in its hands, that it is after all unfit to steer the ship.

MR. RANDALL'S retrenchment committee is cutting down a good many sound limbs along with the rubbish. The economy which it proposes is not entirely unselfish. The child of such economy, begotten by political necessity, is too apt to be called, and justly, too, political capital. He is a sickly infant, and doesn't often live to walk alone. Least of all does he ever become a staff for the aged, or present a shoulder stalwart and strong enough to lean upon. Unfortunately, Congressmen of both parties must be economical from expediency, and as a matter of policy rather than of principle, and the Republicans dare not oppose measures of economy except with infinite care. The public service is likely to suffer in consequence. One result of the policy inaugurated in the diplomatic appropriation bill will be (if it be carried out) to deprive the public of the services of all men who are not rich. Few men now can afford to leave their practice at the bar, their salaries on the bench or in other places, or the peace of private life, for the post of envoy or minister abroad; and if our economical House goes on, none but the richest Americans can accept such places in the future. This penny-wise pound-foolish policy has done us no end of injury already in other things. When shall we learn that it is wise economy in public affairs, as well as in private life, to buy the best article for the purpose and pay its honest value?

Some of the diplomatic correspondence, it is true, would convey the impression that it is dear at any price, and justify some of the prunings of the Committee. Mr. Meredith Read will certainly have only himself to blame if he is legislated out of office, if it should really be the fact that the Secretary had to publish his correspondence willy-nilly. The Department of State and the country at large hardly needed the assurance of a diplomatic letter headed "Legation of the United States, Athens, Greece. Sir:" and ending "I have the honor to be, Sir, etc., etc., etc.," that the moon which looked down on the Queen of Greece, the American Minister and the ruins of the Acropolis, was the same moon that did that identical thing for Pericles and Themistocles, and others of whom the Department and some portion of the country had already heard. Nor does it seem necessary, as Mr. Holman was inclined

to say, that the Government should know that King George wore the uniform of a general, and the High-priest's back was stiff with gold embroidery. \$7,500 a year and contingent expenses certainly seem a large price for the privilege of having Gen. Read in the public service; but the Secretary will certainly greatly miss him as a correspondent if Congress has its way and brings him home.

If it be true that the Democrats are discouraging in their Bourbonism, what can be said of one group of the Republican leaders? One might naturally suppose that Governor Chamberlain would have in his struggle with Whipper and Moses the hearty assistance of the leaders at Washington. Leaving out of consideration the questions of Honesty and Honor, it might be thought that self interest would stimulate men like Senator Morton, who is so anxious to be President, to stop the fight which is raging within the party in South Carolina. Gov. Chamberlain is a Republican by conviction, and has always been one: what were Moses and Whipper, and what are they now? It is a struggle between two distinct forces in the Republican party. They are diverse, different, irreconcilable. The one is the parent of safety, of honest government, of prosperity and peace; the other is the father of evil, of anarchy, of ruin. The party cannot take them both into its bosom: it must choose one or the other. If it elect the side of Chamberlain, it may regain its prestige and hold on to power: if that of Moses, it will not deserve to live, nor can it hope to do so, at least in the Palmetto state.

WORSE even than their coldness to Governor Chamberlain and the cause he represents has been the confirmation by the Administration leaders of Mr. Billings. Harsh as the remark may sound, it has been said that this was the worst appointment General Grant has made. At all events it is believed that Mr. Billings was Durell's assistant; that he drew the midnight order which led to the latter's fall and brought infinite sorrow on Louisiana; acted as counsel for Kellogg, and tried to suppress evidence before the Senate: and it is known that his confirmation was protested against by the bar of New Orleans without regard to party! It is such acts as this, whether looked upon as a Presidential nomination or an endorsement by the Senate, that dishearten thinking men of every party and both races. What can we hope for from the ignorant and vicious, when

the wiser and better cannot be trusted? What can be expected of the Bar if the Bench be dishonest—of the people when its leaders become corrupters and corrupted.

THE Brooklyn Council has begun its sessions, which promise to be about as satisfactory as the Committees and things which have preceded it along the dark and dingy path of the Beecher-Tilton scandal. There is very little doubt of its decision, no matter how far it goes towards the origin of the trouble, and none of its effect on public opinion.

The believers in Mr. Beecher's innocence will still believe it, and those who doubt it be "of the same opinion still." Meantime there is much eloquence—a quantity of epistolary wisdom and infinite learning—lavished on the subject. Dr. Bacon is satirical, Mr. Beecher hot and cold by turns, often cheerful and witty—flowers abound, women throng the galleries, the proceedings are sprinkled with applause and laughter, and Brooklyn is happy and much talked about.

THE President has signed the Centennial Bill, and the Board of Finance will get the \$1,500,000. Nothing remains now to be done but to draw from the Secretary of the Treasury or from Congress a liberal construction of the revenue laws, and thus relieve the foreign Commissioners from all possible trouble in the future. Mr. Springer's amendment is of a nature unexpected to that gentleman. Instead of putting the Government in the position of a preferred creditor—thus taking advantage of those who had helped the enterprise in its days of doubt and danger, when it needed help the most—his provision does not even leave it where the bill did, the position of a common stockholder. The United States might have given this money and done a handsome thing for an enterprise which had their honor in charge; they might have subscribed to its stock, which no doubt would have been prudent and business like and worthy of a Yankee nation—and which course indeed the bill originally contemplated; but Mr. Springer insisted on a provision that there should be no dividend of any profits until this money be returned into the Treasury. It is now claimed with great show of reason that no dividend of any profit can be made until the stock-

holders are paid, and the Government must therefore wait until the capital is all refunded. A "Springer amendment" might be a useful phrase in parliamentary practice, for the thing without a name is not uncommon.

THE Philadelphia municipal election has been very cheering to the lovers of Reform. In some places mistakes were made by the citizens, in others the politicians were too strong for them, but on the whole the general result is more than satisfactory. The citizen has tasted success and independence, and he will not return easily again into the fold. In some of the wards the change of vote amounted almost to a revolution. In the 8th, the stronghold of Republicanism, the Democratic and Reform candidate was chosen by nearly 500 majority; in the 23rd, the strongest of the Regulars was handsomely beaten; in the 21st an independent Peoples' movement swept everything before it; in the 15th Mr. Caven was triumphantly re-elected. Next year the Councils will contain a number of excellent and reliable men. Of course this result has not been easily accomplished: it has required organization and work. The newspapers, notably the *Telegraph* and *Times*, have been very effective, and their influence was perceptibly felt. The people have at last realized that the election of Councilmen is a matter of the first importance, and that they should go to the polls when they choose them as they would when they vote for Directors of any corporation of which they hold the stock: if they will do this persistently, we shall soon cease to blush for Philadelphia.

MESSRS. Moody and Sankey gathered and interested at their gospel meetings in this city at least twice a day for two months congregations numbering thousands of people, in which they inspired many rough and unromantic men to stand up and ask to be prayed for, to throng the inquiry rooms, and to return after their excitement, if such it were, ought to have subsided to testify that they had undergone a real change of spirit. And these results seem to have depended very little upon such contagious phrensies and excitements as often carry, at revivals, the preachers and preached quite out of their senses. These facts are quite extraordinary, and ought to be as much so to a skeptic as to a bigot. We would not offer any opinion as to the cause or usefulness or permanency of the effects, but it is certain that many explanations have been offered of them

quite below their dignity. The immense and continuing audiences, containing always the testimony of some rough and unaffected convert, have been ascribed to curiosity and excitement, and the profession and labors of the evangelists to effrontery and hypocrisy. Such explanations are, objectively treated, trifling as proposing causes very incommensurate with the results; and considered subjectively they speak very little for their source. One feature of the affair has naturally provoked a torrent of fun. When the furniture of the building was sold to help to defray the expenses of the movement, a curious contest took place over the possession of the chairs which had been sat upon by eminent persons. Those which had been occupied by Mr. Moody, Mr. Sankey, President Grant, Mr. Wanamaker, Mr. Blaine and Col. Scott, sold at figures varying from \$5 to \$55, and were caught up eagerly at those rather high figures. It is not remarkable that out of the many thousands who heard Mr. Moody preach and Mr. Sankey sing, two should be found willing to give \$55 apiece for their chairs, nor that out of the millions over whom President Grant presides there should be one who would give the extravagant sum of \$22.50 for the chair he occupied; Mr. Wanamaker's power to consecrate a chair, or Col. Scott's, may not seem at first sight so evident, nor can one see on what basis the values were put. But they were paid at least, and that is more to the point. It has been said that the fowels used by the evangelists were consigned, not to the hands of washer-women, as would have seemed natural, but to those of enthusiastic followers who struggled for the possession of them "just as they were." This is certainly carrying the thing a peg too far. Virtuous and excellent as Messrs. Moody and Sankey doubtless are, they are still in the flesh, and more or less of the earth—earthy.

Reverence for them as holy men is all very well, up to a certain point, but beyond that it takes the form of something that is far less dignified, and may even be harmful; and, degraded to the low level of superstition, it ceases to be respectable. In the dingy twilight of such a story as this last, the bones of the eleven thousand Virgins at Cologne and other cheerful and authentic relics become almost luminous. But doubtless these stories have been greatly exaggerated. Slander would naturally roll such incidents under his tongue, and he may have licked a very harmless morsel into an ugly shape. At this very moment the depot church is tumbling down. The scent of the evangelists will surely hang around it still, though it is being broken and shattered, but thus far no hand has ventured to stay the destruction, and no voice plead with Mr. Wanamaker to "spare that" depot. If all were true which those who belittle the evangelists and make fun of their labors tell us in solemn tones, no clothing store, however orthodox, would have been suffered to rise out of the premature ruins of the depot church.

THE ACADEMY OF NATURAL SCIENCES.

THE Academy of Natural Sciences has held its first meeting in the new hall at the corner of Race and Nineteenth streets, occupying its commodious building with the opening of the Centennial year. While thus changing its local habitation, it has found the occasion an appropriate one for revising its organization, and for adding some functions which shall, more nearly than heretofore, relate it to that public to whose generosity it is so indebted.

As interested in the development of facilities for scientific research and training in Philadelphia, the writer proposes to take a brief view of the Academy, endeavoring to discover what it is, and what it is not. And he here premises that the institution will be considered with reference to the only standard possible; viz: as occupying the position of the leading institution for the development of the natural sciences in the second city of the Western Hemisphere, the first in the field of science, with a prestige based upon solid work done in the past.

The objects of the Academy, as stated by its founder, and as recalled by its president in the late report of the trustees of the building-fund, are three-fold; the promotion of original investigation, of instruction, and of distribution of knowledge of the natural sciences in their broadest sense. And since all that is known of Nature is obtained by original research, this function may be looked upon as the most important. This office is indeed the distinguishing one of institutions of this class; for ordinary instruction on these subjects is given in all our colleges and universities; and the duty thus imposed on their professors necessarily restricts the time and opportunity for research. The Academy of Natural Sciences should bear the relation to the University of Pennsylvania, that the Jardin des Plantes does to the medical and other schools of Paris, or the Royal Institution of Great Britain to her universities. The fulfillment of this relation involves also instruction by lectures, which differ from those of the universities in important respects. The courses being more special, are necessarily more extended in their proper fields, while they have the special advantage of being fully abreast of the times in springing from original sources.

An institution of original research in the natural sciences embraces three departments, viz: collections, publications and library. The first constitute the raw material of nature, the comprehension of which is the object of the investigator; the results of his work are recorded in the publications; while a library furnishes him with that which has already been brought within the range of human knowledge. Obviously enough, however, the *material* is the *sine qua non* of original research. An institution without new collections, is a stomach without food, a mill without grain. It is right here that the greatest want of knowledge exists. Institutions are lavishly supplied with books and buildings; but that out of which all scientific books are made, and to include which buildings are erected, is little thought of. And yet of the *three* necessary items, collections are far the cheapest, when obtained by specialists. And here must be noted the obvious truism, that none but the scientist knows *what* to collect, *where* and *how* to collect, and how to preserve collections when made.

There is, however, a still more important essential of production, and that is, of course, *men*. Without *men*, collections, publications and libraries are alike useless. Prof Haeckel, of Jena, indeed, says that the importance of scientific work done by institutions is in inverse ratio to the extent of their buildings and the magnificence of their appointments; and it is certain that the true man of science needs few of these things. What he wants is first material, secondly *material*, and thirdly *material*. In fields explored by the microscope this may be had near at hand, and without expense; but in the great visible world, the contents of a continent are not sufficient to demonstrate the general laws of creation. A melancholy sight is an institution of research, with buildings and all the paraphernalia of position, whose work consists of records of donations and celebrations, catalogues of officers and members, and fearfully and wonderfully made constitution and by-laws.

True men of science, like all other specially constituted men, "are not made, but born;" yet the range of the field is so great, and the diversity of available gifts so considerable, that men will not be wanting in so large a country as our own. The fourth necessity of the institution of original research is, then, means of support for the competent investigator. The producer of knowledge is at least as worthy of support as he who transmits it to others.

With the endowment of investigators, valuable results will follow; but without this, nothing can be expected of buildings, collections and libraries. The men who have developed the sciences of this century, have mostly done so with small and meagre appliances and miserable surroundings, but they have at least been able to devote their time to the work.

In examining the relation which the Academy of Natural Sciences bears to these undeniable truths, let us first see what its positive qualities are. It possesses a roomy and elegant building, and a library sufficiently endowed to bring it up to the needs of all original investigators. It has first-class collections of stuffed birds and shells, a fine herbarium, and in the other departments collections of various grades of value. Among these are numerous specimens of especial rarity and importance, particularly among the fossils. In most of the departments there are specimens, sometimes numerous ones, from which the first descriptions of the discoverers of the species were made. And these "type specimens" have an especial value. If we add to these, fair but not full means for publishing the results of research, a general view of the actual producing facilities of the Academy has been attained. In the department of instruction, the institution possesses one endowment, that of the late Augustus E. Jessup, which pays \$480.00 per annum for the support of students. These give half their time to the Academy in consideration.

The institution, however, like all others, lacks more than it possesses. First and chiefly, it lacks means of support for the investigators. It has no paid professorships. As a necessary consequence its collections increase slowly, and then in a direction little beneficial to original research. Skins of birds and mammals are not the animals themselves; shells of molluscs are not the molluscs themselves. Costly gems and beautifully polished specimens are not what the mineralogist chiefly needs, although they have a high market value. In all vertebrata, except birds, the collection is poor; in the articulata, by far the most extensive division of animals, there is relatively and absolutely little, and the lower invertebrata are not better represented. The osteological collection is small, and the very valuable series of human crania is now exceeded by a number of others. The valuable series of fossils embraces a very small fraction of the species known, and probably existing in the earth's crust, as may be easily seen from the following calculation: The number

of species of living animals is roughly estimated at 500,000. There are twenty-three fossiliferous formations, which represent as many periods, some of which probably possessed more and others less numerous species of animals than the present period. If we multiply 500,000 by twenty we obtain 10,000,000 as the number of animal species to be represented in our museums by several specimens of each, should the necessary preservation and discovery have been realized.

These statements are not made for the purpose of depreciating the importance of our collections, but simply to indicate how greatly the work to be done exceeds that already accomplished. Moreover, no museum can cease to accumulate without bringing research in most directions to a stand still. As the middle ages were the period of cathedrals, so the present age is one of colossal museums, and of an extensive development of knowledge of the sensible creation.

As a matter of fact, the Academy has almost ceased to extend its museum, excepting in one or two departments. Consequently original research based on its collections has very nearly come to an end. There are now no original researches in progress which depend for material on the Academy, excepting some of such a limited and casual kind, as not to make exception necessary. And this has been the case for several years. An examination of the volumes of the "proceedings" and "journal" of the society, shows that only a percentage of the matter published, was derived from study of material found in or obtained through the Academy's collection. Thus selecting at random, in 1856 we find that 204 pages record observations on material derived from outside sources, and not belonging to the Academy, while 80 pages cover studies made on the collections procured for, or existing in the institution. In 1858, 186 pages are exotic, and 17 home material. In 1866, the ratio stands 315 to 77; in 1860, 373 to 114; in 1874, 142 to 6½, and so on. In each of these years there was other important matter published, which was not derived from museum specimens of any kind, and is not therefore included in the enumeration. Now, these figures do not in any wise reflect on the industry of the scientists of the Academy, since of the matter mentioned as derived from a study of material from external sources, fully two-fifths were contributed by them. The figures only go to show how far these gentlemen are necessitated to draw on the resources of more progres-

sive collections, and how valuable on the other hand are their services to the institutions making them. But it is evidently true that the chief service of the Academy to Natural Science for some years past, has been the publication of the results obtained by the study of the collections of the various government expeditions and surveys, most of which belong to the National Museum at Washington. And it is needless to add, that while the Academy in so doing performed a service to science of no ordinary importance, it must not be deceived into supposing that it is therefore an institution of original research. And this source of supply for publication is now nearly closed, since the numerous new publications of the surveys and of the National Museum absorb most of the results.

This state of things is not due to the absence of first class scientists from the membership of the Academy. It has never lacked distinguished names, and eight or ten contemporaries can be quickly cited who are known wherever the natural sciences are studied, and whose mastery of their respective fields is not disputed. The weak point is in its organization. It may surprise some readers to learn that in this respect it does not differ from any other body which observes decorum and transacts business when assembled. Its officers are the usual president, vice presidents, secretaries, etc., constituting a management as appropriate to a historical society, library company, and I might add church vestry, as to an academy of natural sciences. In a word, it has no positions designed for its distinctive and essential feature, its scientific experts. Under this arrangement the finances and property are well cared for, but the original research flourishes elsewhere. *Sutor ne ultra crepidam*; when the merchant arranges the work of the tailor, the blacksmith that of the weaver, and the dilettante that of the original investigator, among the varied results, work does not appear. The scientists work on exotic material at home, and the "original research" ceases to be a function of the Academy. To cite an example: a department of the institution supposed to be devoted to original research, after an existence of a few years, was found to have several thousand dollars to spare for building purposes, while the additions to knowledge developed by study of the material in its possession were proportionally reduced. However creditable this state of things may be from a financial point of view, it fully justifies the "faint praise" uttered by a distinguished foreign savant, "They will keep what they have got."

The remedy for this is not difficult to discover. It is simply to adopt the organization which is possessed by all similar institutions the world over. Let it create as many positions as there is reasonable probability of receiving endowments in future years, and attach to them privileges which will render them desirable to incumbents, and duties such as are necessary to the Academy. Of course the number of such chairs could not be large, and should relate, as to division of labor, about as do the professorships to the work of the universities. Such is the arrangement at the Jardin des Plantes. The duties of the professor include the supervision of the department of the museum appropriate to his specialty, and the delivering of a course of lectures thereon. In this way Paris offers to the student facilities in every direction, and he can take courses of the Sorbonne or Ecole de Medicine, varied with those of the Jardin des Plantes in some or all the departments. Such a course at the Academy of Natural Sciences would be a most valuable adjunct to the medical schools of Philadelphia.

The financial question comes, however, at once to the front. This is *the* question, and it must be largely left with the readers of this article. Nevertheless a few of the chairs above described could be now filled creditably without salary; and other chairs were better left unfilled than be occupied unworthily. Further than this, it is not unlikely that should the Academy adopt an organization worthy of its mission, and of the science of to-day, that a few endowments could be procured. These might not be up to the American expectation, but would be fully equal to those received by many of the most illustrious men of Europe. It is difficult to believe that a people who endow libraries and universities, would refuse the same support to institutions which produce the books that fill the one, and are the means of instruction used in the other. This is evidenced by the liberal subscription for the building just occupied—all which money would have been, in the writer's estimation, as well spent in endowing chairs in the old locality.

But should endowment be temporarily delayed, the reorganization should not be on that account postponed. If the voluntary services of four curators have been beneficial in the past, the same services of nine or ten experts must be vastly more so. Under scientific direction, intelligent persons can be employed to perform a part, at least, of the necessary drudgery. But the proposition to make this

kind of service the condition of holding the positions of direction in the museum, is to invert the universal order of things; to create a show museum only, and to erase the name of our Academy from the roll of honor for the time to come. Yet such a proposition is gravely entertained by some of the members, and constitutes the *Avernus* to which the descent is just now particularly easy.

An organization such as is here indicated has been already in part adopted by the Academy and incorporated into the by-laws, but with such exceptions as to materially injure the practicability of the scheme. A temporary difficulty exists in the provision in the charter that the property, including museum, shall be under the management of four curators. This institution should give way to the larger number represented by the professors, or conservators, as they might be called. Sufficient reasons for such change have been already cited, but others may be added. Thus it is obvious that four persons cannot arrange or label a museum in a correct manner; they cannot be expected to perform what all the experts in the Academy combined could not succeed in at the present time. While this is a work of specialists alone, the board of curators is only partially composed of special scientists. As having charge of the property, it necessarily includes business men and financiers, so that to two of its members at most must be delegated the proper scientific arrangement and management of the museum. In the light of the functions of the Academy this system is clearly impracticable, and in the light of experience it is proven to be insufficient. While the care of the property should remain in the hands of business men, the arrangement, and above all, the increase of the museum should be in the hands of experts, each in his proper department, as is the case in the institutions of the Old World. To employ one person and an assistant to arrange and label the entire museum is like employing a house-painter to furnish *Madonnas* and angels by the yard for the inside of a cathedral. And precisely similar results have followed, this policy so far as it has been adopted by the Academy, of which it may become necessary to speak at a future time. The gradual concentration of the direction of the museum into the hands of two or three persons is simply choking the mill at the sluice, or the man at his wind-pipe.

The class of gentlemen who pursue science as an alternative to the business which sacrifices to the lares and penates, and those who adopt it as an occasional recreation, will doubtless welcome any

change of organization which will bring new material within their reach, or furnish a source of knowledge not otherwise accessible. Their own rights and privileges can be in no wise curtailed by the proposed creation of nine or ten conservators or professorships, but would remain where they are now. They would, indeed, be enhanced; for the present restriction of the management of the museum to four, or practically two persons, cannot offer the same facilities of introduction and access as in the case of a larger number.

Finally, this reorganization should be perfected at once. The danger is that our city will be shorn of her strength in this field before many years have elapsed. Several institutions with sufficient endowments will be in working condition before long, if present prospects are realized. I may merely mention one projected in a neighboring Western city, with an endowment of \$2,000,000, and others to the south of us. And none of the experts of the Academy could refuse offers from these quarters, if accompanied by salary and opportunities of procuring the materials and aids to original research.

E. D. COPE.

ON THE TRAINING OF NURSES FOR THE SICK¹

MISS NIGHTINGALE, in opening the preface to her "Notes on Hospitals," says: "It may seem a strange principle to enunciate, as the very first requirement in a hospital, that it should do the sick no harm." But she goes on to show that hospitals may be so defective in contrivance and management that their inmates are in many respects placed at a disadvantage in their struggle with disease, or even exposed to new sources of danger; thus being, as it were, betrayed by their own allies.

When, however, we consider the word "nursing," and all that it implies—the host of kindly images it calls to mind—it may seem even more strange to say of this service that its first requisite is that it should do its recipient no harm. And those of us who have had the good fortune to find the evils of sickness mitigated by the tender care of skilful nurses, whether bound to them by ties of friendship

¹ By John H. Packard, M. D., one of the Surgeons to the Episcopal Hospital, Philadelphia.

or kindred, or serving for wages, may be inclined to doubt the necessity of any further provision in this matter. Let me say here, that in the majority of cases of severe illness, the battle is fought mainly by the nurse. The ablest medical advice may be of no avail, even if carried out, unless gentleness, firmness, care in many details to be hereafter mentioned, tact and common sense, are possessed by the constant attendants of the sufferers. Men there are, as well as women and children, who have such tenacity of constitution as to conquer even desperate disease, in spite of neglect and even bad treatment; but these are rare exceptions. In the main, the issues are determined in a great measure by faithful and skilful nursing, or the want of it.

Probably few persons have ever asked themselves the question—"How are the sick nursed?" The general answer would be—"Oh, by their families, or their servants, or their friends." Fortunately, in many families there are servants who in cases of sickness assume the role of nurses as a matter of course. Their long-trying faithfulness, the reciprocation of kindly feelings and good offices, and the experience they have gained on like occasions, combine to make their services in this capacity both acceptable and efficient. Often, again, the members of a family will take this duty upon themselves, and become by the force of affection skilled in the work. Or a friend will give up all other engagements for such a labor of love, and fulfil the task well.

But there occur many cases in which these resources are wanting, or are exhausted by the demands on them, as in severe and long-continued illness, or when several members of a household are stricken down at once. How are these to be supplied?

Under such circumstances, the physician, or some friend or acquaintance, is called upon to recommend a nurse. It may be that the choice made in the emergency happens to be a good one; a person of skill and experience is obtained, and all goes well. But it may be that experiment after experiment is tried; a succession of ignorant, noisy, conceited, careless, or even dishonest or intemperate characters come and go, the poor sufferer perhaps losing his life before any one worthy the name of a nurse appears upon the scene.

This picture is not too strongly drawn. Let me quote from a high authority in England, where for a number of years organized

and earnest efforts have been made to establish a better order of things. The London *Lancet*, speaking of a report from the sub-committee of the National Nursing Association, says :

“ This report shows in detail, and most truthfully, how many lives in all grades of society are annually sacrificed, because persons cannot be found to carry out skilfully and faithfully, as well as tenderly, the advice and directions of the physician. This want affects rich and poor alike. Many of those who live in palatial establishments, and are able to obtain anything and everything that money will buy, have experienced the sad fact that the lives of those nearest and dearest to them have been lost, because the careful conduct of the nursing was not properly provided for. And the same want exists in the homes of the poor.”

So urgently was this need felt in the city about forty years ago, that a nurse society was organized, which is still in active operation ; but it is identified with a Lying-in Charity to such a degree as to make the furnishing of nurses, for other than cases of confinement, of necessity a subordinate feature. One or two extracts from its last report will, however, afford some additional evidence upon our present subject. The managers say, quoting from the Report for 1853, published in 1854 :

“ It is still true that ‘ The want of efficient nurses, not only in obstetrical cases, but in sickness generally, is widely felt in our community, and we have constantly been made acquainted with the great difficulty experienced in procuring good nurses, even by those who have the means to pay liberally for their services. The rapid increase of our city makes this want annually greater, and calls for a systematic arrangement by which this most useful occupation, so peculiarly within the sphere of women, shall be opened to such as are naturally adapted to its duties and responsibilities. To train such in the necessary acquirements, and introduce them favorably to notice when deserving, and to supply the demand for nurses, by establishing a communication between them and the public, is one object of our society.’ ”

They say further, speaking of the preceding ten years' work :

“ More than six thousand citizens have applied at the institution for nurses, of whom about four thousand have been supplied. The excess of applications for nurses beyond our capacity to supply them, has been a constant and unvarying feature since the founding of the nurse school, verifying the quotation given above from the Report for 1853.”

It would be but wasting time to argue at greater length as to the

need of additional provision for the efficient nursing of the sick in all classes of the community. Let us proceed to consider what we want, and how to get it.

The remarks now to be made will have reference especially to the training of female nurses; for the reason that among women we find the best material for the discharge of these duties, and that it would be impossible, except in military organizations, to find such a demand for male nurses as would warrant the establishment of training schools for them. It is indeed extremely seldom that cases occur in civil life, requiring attendance which cannot be given by women; and when a male nurse has been needful, so far as my experience or observation has gone, there has never been any difficulty in obtaining one.

Permit me here to quote from Dr. O. W. Holmes a passage, the aptness of which will, I trust, be apparent, and which may recall to some of us characters that we have had the good fortune to know in real life:

“She had that genius of ministrations which is the special province of certain women, marked even among their helpful sisters by a soft, low voice, a quiet foot-fall, a light hand, a cheering smile, and a ready self-surrender to the objects of their care, which such trifles as their own food, sleep, or habits of any kind never presume to interfere with.”

As far as natural qualifications go, such a woman would make a perfect nurse; but there are many details which even she would be apt to overlook, unless she had had the benefit of instruction. Training is as needful for a nurse, as for a physician, a book-keeper, or any other skilled laborer.

Our sources of supply of nurses, so called, may be summed up as follows: Sisters of Charity, who, as I have been informed by one of their Superiors, a woman herself of large opportunities for knowledge, have no systematic instruction, but pick up what they can by serving in hospitals; other women who, having been employed as nurses in hospitals, have likewise acquired more or less experience in their duties; women who have taken up nursing in default of other occupation; and monthly nurses who have either temporarily or permanently taken to a more general line of business.

Many of these nurses do their work fairly well; but there is no standard of qualification. I have known one woman who had abundant employment in this city, and was considered an admirable

nurse, who could not read. This fact of itself would condemn our present system, or rather want of system.

It may be well now to state what are the qualifications which ought to be possessed by a trustworthy nurse, and to lay down some general principles as to her duties, before offering any suggestions as to the mode of training.

Honesty and sobriety, and readiness to obey the orders of the physician, may be taken as matters of course; without these, no woman can be fit to take care of the sick. Sound health, and average strength, are equally indispensable. Another essential quality is a thorough interest in the work—that self-surrender which Dr. Holmes speaks of in the passage before quoted, and which is further set forth by Miss Nightingale, as follows:

“I have seen sisters down upon their knees scouring a room or hut, because they thought it otherwise not fit for their patients to go into. They had the true nurse-calling—the good of their sick first, and second only the consideration what it was their “place” to do—and women who wait for the housemaid to do this, or for the charwoman to do that, when their patients are suffering, have not the *making* of a nurse in them.”

The habit of thorough cleanliness of person, and of neatness and simplicity of attire, need hardly be insisted upon. The dress should never be of such a texture and color as “not to show dirt.” Nothing can be worse than draperies which rustle, or which catch in things and knock them down.

Quiet and self-possessed manners and a low voice are of no small importance in the sick room. They are entirely consistent with the firmness and collected demeanor which will soothe and control a weak and perhaps wayward patient. Circumstances sometimes occur—unexpected or alarming symptoms—which demand both courage and calmness in the attendant; and as a preparation for meeting these, the habit of self-possession is invaluable. Adults as well as children, in sickness, often feel the need of being gently controlled; and to do this requires not the assumption of authority, but calm firmness, and the exercise of ready tact.

Loud talking, or that far more aggravating undertone which just prevents the invalid from hearing what is said—discussion of any kind—all these are apt to do much harm in the sick-room. The rattling of newspapers, humming of tunes, or the making of any needless noise, will grate upon an ear rendered sensitive by weakness.

A nurse should never invite her own friends to come into the sick-room, nor should she allow visitors to the patient, if such are admitted by the physician's orders, to stay too long, or to introduce topics which can be exciting, whether agreeably or otherwise.

Nurses need training in regard to the care of the sick-room. Everything should be kept cleanly and in order. This can only be done by constant care. Eternal vigilance is the price of a good many things besides liberty. Medicines, glasses, napkins, everything should be arranged so as to be easily found at a moment's notice. Dusting should be done very quietly, and without fuss or annoyance. All slops should be emptied at once. The ventilation of the room should be carefully attended to, under the physician's direction, if necessary. The temperature of the room should invariably be regulated by medical order, and tested by the thermometer. All the food and medicine should be given with order and method, at prescribed times; in many cases a written schedule should be followed. In regard to these matters, or the changing of sheets, &c., there should be no talk beforehand. To a sick person, the mere knowledge that something is to be done is burdensome. Everything should be quietly prepared, and then the nurse should act, steadily, gently, and without fuss or busting about.

As to her relations with the physician, the nurse ought always to take his directions with the utmost care and attention. At each visit, she should make to him a clear and faithful report of what has occurred, from memoranda if necessary. For instance, should the patient have had a chill, the nurse should be able to say when it took place, how long it lasted, what was the degree of fever following it, and whether or not there was subsequent perspiration. Few nurses can be trusted to make reports of the pulse, and fewer still to observe the temperature of patients. These are matters which require professional knowledge, and habits of observation not to be looked for in any but specially-educated persons. It may be, however, that when other points of training are thoroughly acquired, these may be added in exceptional cases.

It would be impossible, within our present limits, to speak of all the duties of a nurse about the sick, in anything like detail. These duties will doubtless suggest themselves.

One word may not be out of place as to a matter in which un-

trained nurses are apt to err. No prognostications should ever be indulged in, whether gloomy or otherwise, or reported as coming from the physician, either to the patient or the friends. No narratives of other cases should be offered; and indeed the nurse should remember that her business is not to talk, but to act.

We are now prepared to consider what measures may be advisable towards the establishment of a system by which a supply of well-trained nurses may be secured for the community. And in the first place, we must look to the large hospitals as the great schools for nurses, as they undoubtedly are for physicians. Other things being equal, the more perfect the organization and regulations of these institutions, and the more complete their sanitary arrangements, the better qualified will be the nurses trained in them. With the co-operation of the medical staffs of these charities, an influence may be exerted which will be felt far beyond any calculable limits. The writer in the *London Lancet*, before quoted, says further:

“A training school is proposed in close connection with a hospital, a district home in the vicinity of the hospital, and responsible to the training-school, which home shall, so to speak, nurse the district immediately surrounding it, and also send out nurses to other districts. A year's hospital training, and three months' work in the 'head-quarters' district home are to qualify for the certificate of competency.”

Institutions of this kind have already been in operation, more or less successfully, on the continent of Europe, at Carlsruhe, Darmstadt, Kaiserswerth, Dresden, and Berlin; in London, at the King's College and St. Thomas's Hospitals; and in Dublin, at Sir Patrick Dun's Hospital. There is also a training-school at Liverpool, for which a hospital has been built. The first two of these are particularly praised by Miss Lees, in her “Hand-Book for Hospital Sisters.” The French hospitals are made of use in the training of male nurses, the Sisters of Charity being employed more as assistant-matrons.

In this country, the only training-schools of which I have any knowledge are five—two in New York, one in Boston, one in New Haven, Conn., and one in this city. Of those in Boston and New Haven, I have no information except that there are such institutions. One of those in New York is connected with the Bellevue Hospital, and has been in active operation for nearly two years; it is rapidly

gaining the confidence of the public, and its value is fully recognized by the physicians. A medical friend writes me, that there is "no lack of good material for nurses, and the applicants for admission are from the middle and better classes of women." He says also that "apart from hospital nursing, the graduates find an ample field as private nurses, and the demand for them exceeds the supply."

The other New York school is attached to the Charity Hospital on Blackwell's Island, and has only been in existence for a few months. The one in this city is connected with the Woman's Hospital, and is conducted on a well-arranged system; but the training cannot be, in a special institution like that, sufficient to meet all the needs of a large population. Good as it may be as far as it goes, its recipients have still much to acquire before they can enter as experts upon general nursing.

It would perhaps be interesting, did time and space permit, to give a sketch of one or more of the leading institutions for nurse-training, and to see how they show the impress of the social conditions surrounding each. But the general plan followed has varied very little, and indeed there is not much room for variety in essentials.

I cannot but remark, however, that it seems to me that in some of these schools the error has been committed of carrying the training so high as to develop a nondescript official—not a doctor, but more than a nurse; unequal to great emergencies, and yet too learned to be humble and assiduous in the drudgery inevitable in the sick-room. Thus at St. Thomas's Hospital, Miss Lees tells us, the pupil-nurses are taught to dress wounds, to take accounts of cases, to make and apply bandages; are required to hear lectures on anatomy, physiology, pathology, and the chemistry of common life. One could hardly expect the resulting cyclopedia to submit to directions, unless from some one who had a certificate that he knew more than she did.

In concluding this paper, I beg to offer a brief sketch of a plan for an organization to take charge of women desiring to become trained nurses, to aid them in their object, and to afford the medical profession and the public facilities for obtaining their services.

To effect a beginning, it would be needful to start a subscription, and to have a sum of at least ten thousand dollars pledged to the

support of the enterprise. The contributors should then hold a meeting, and proceed to the election of a board of lady-managers, with the usual officers—president, vice-president, secretary and treasurer. A board of counsel, consisting of four or five gentlemen, might be appointed to give their advice and assistance when desired.

To a committee of these ladies application might be made by any women desiring to obtain instruction in nursing under the auspices of the society. Such women should be required to give evidence of good character, and to be free from present ties which would hinder their faithful use of the opportunities they sought. They should be healthy, of suitable age, and with a certain amount of practical education. A small fee might be required, and a pledge to remain under instruction, unless dismissed for reason, for a period of three or six months, or a year, at least.

By arrangement entered into with some large general hospital, these candidates might then be entered as probationers, and employed in actual work at the bedside. In such an institution it would be needful to have these probationers under the control of a head, perhaps the regular matron, who should see that they observed stated hours, that their work was properly done, and that their time was profitably spent. The wards, if large, and giving employment to several probationers each, might have a "sister" to take the immediate oversight of the pupils.

During all their period of probation, monthly or more frequent reports might be made to the committee of the society, by the overseers, as to the conduct and capacity of its proteges; and any special matter, such as misconduct, carelessness, or gross stupidity, necessitating dismissal, should be at once made known to them.

Such probationers as passed successfully through the trial of a certain period—a year, for instance—might then be admitted to the higher grade of pupil-nurses. These should be entrusted, under the oversight of an advanced pupil, or a "sister," with the special care of one or more grave cases, either medical or surgical. Each should have charge in turn, for a month, of the bedding and other ward supplies; and the same arrangement might be made as to the cooking, for cases requiring food not supplied on the regular diet-table of the ward.

Lectures of a thoroughly practical character, having reference strictly to matters belonging to the nurse's province, might be delivered to the pupils by members of the hospital staff.

During the second year of tuition, pupils whose services were not required in the hospital might be allowed to engage in attendance upon cases of severe illness at the homes of the patients, either in connection with a dispensary or in the private practice of physicians in good standing.

At the end of a two years' term of training, each nurse might, either upon certificate of the sister in charge and the hospital staff, or after examination, receive from the society a diploma; and this would soon become a recognized guarantee of capacity and trustworthiness.

One incidental advantage which would result from this, seems to me so great as to deserve special mention. I refer to the influence for good which would inevitably be exerted upon the subjects of this skilled attendance; the purifying and refining of squalid homes; the benefit of contact with persons whose very office would demand a certain moral tone, the more powerful because not directly aimed at the correction of vice, and the more effective because encountered under the softening and subduing circumstances of sickness and trouble. No one can estimate the extent to which a force of this kind might continue to work, long after the immediate occasion for it had passed away.

During the time of this training, the pupils would be under the supervision of the society, but would for the most part have their board and lodging at the hospital in which they might be on duty. For unattached pupils, and for graduates who might desire it, a home should be provided, where, for a reasonable charge, they might live, and where a register should be kept, to enable physicians and the public to obtain the services of a competent nurse whenever occasion should arise.

Notable instances of good conduct on the part either of pupils or of graduates—such as courage in time of an epidemic, or a long period of devotion to trying duty, or a good record of ten years' consecutive service in nursing—might be recognized by the society, and testimonials awarded in the shape of certificates or medals.

Such is a brief and very general sketch of a plan, in the main the same as those elsewhere adopted, by which a great and acknowledged want might be met, and under all ordinary circumstances a supply of qualified nurses be ensured to the sick in every class of the community. One practical point, upon which the whole of this

system of training hinges, must not be overlooked. How would such a scheme be regarded by those in control of our hospitals? That they would meet it with favor, we cannot doubt. The difficulty of obtaining good and reliable nurses, at present continually felt, would be permanently solved. Far more efficient service would be commanded, at a smaller expense. A fresh claim would be established upon the public, who would sooner or later recognize and respond to it. These reasons alone would secure the countenance of hospital authorities to a system of nurse-training, instituted under proper auspices. There can be no reasonable doubt that in a city like Philadelphia, where the claims of mere charity are so promptly met and so generously responded to, the means of support for an institution like that now described would be abundantly forthcoming. The expenses of the New York training school are estimated in their report at about \$12,000 a year. A much larger sum would be well invested in securing the great benefits, direct and indirect, which would be derived from the efficient carrying out of the ideas which it has been the object of this paper to set forth.

I wish that a much larger space, and a far abler pen, subject to fewer interruptions, could have been employed to bring this matter forward; but it may be hoped that the merits of the cause will make amends for any defects in its presentment.

THE NEW TENDENCIES OF POLITICAL ECONOMY AND SOCIALISM.

TRANSLATED FROM THE REVUE DES DEUX MONDES, BY S. H. CARPENTER.

THE political economy which I willingly call *orthodox*—that is to say, the science as it was understood and taught by the fathers of the science, Adam Smith and J. B. Say, and by their disciples—appeared to be definitely fixed. Like the church of Rome, it had its *credo*. Certain verities seemed to be so solidly established, and so irrefutably demonstrated, that they were accepted as dogmas. Those who doubted them were considered as heretics whose aberrations were only to be explained by their ignorance. Without doubt these economic truths were not formulated without meeting strong opposition. From the first they were, and down to our times, they have

been, attacked by certain religious writers who accuse them of materialism and immorality, and by different socialist sects who charge them with pitilessly sacrificing the rights of the disinherited classes to the privileges of the rich; but the economists easily had the advantage of these two groups of adversaries, who, obeying only the inspiration of sentiment, had hardly investigated the questions which they discussed. To-day the economical dogmas meet with opponents still more redoubtable. In Germany they are the professors of political economy themselves, who on this account have been called *Kathedersocialisten*, that is, socialists of the chair. In England they are those economists who have paid particular attention to history and law, and who are best acquainted with the facts determined by observation and statistics, such as Cliff Leslie and Thornton; in Italy this opposition counts a whole group of distinguished writers, Luzzatti, Forti, Lampertico, Cusmano, A. Morelli, who expressed their ideas in a congress convened last year at Milan, and which has for an organ *Le Giornale degli Economisti*. In Denmark there is the excellent economic collection, the *Nationaløkonomisk Tidsskrift*, published by Messrs. Frederikson, V. Talbe, Hausen and W. Scharling. It cannot be denied that this indicates a very serious scientific movement, which calls for a careful examination. We will endeavor first to give the origin and character of these new tendencies of political economy; next we will examine the writings of those authors who best represent the different phases of this movement, as well as of the socialists whom they have undertaken to combat.

I.

The new political economy, unlike the old, comprises the foundation, the method, the mission, and the conclusions of the science. The initial point of the *Kathedersocialisten* is wholly different from that of the orthodox economists, whom they designate by the name of *Manchesterthum*, or sect of Manchester, because it is the free-trade school that has the most logically set forth the dogmas of the ancient creed. Let us see how the new economists themselves present the points on which they differ from the generally received doctrine.¹

¹ We chiefly follow here Adolf Held, *Neber den gegen wärtigen Principienstreit in der National-Ökonomie*; Gustav Schönberg, *Die Volkswirtschaftslehre*; Gustav Schmoller, *Neber einige Grundfragen des Rechts und der Volkswirtschaft*; Contzen, *Die Aufgabe der Volkswirtschaftslehre*; Wagner, *Die Sociale Frage*; L. Luzzatti, *Die National-Ökonomischen Schulen Italiens und ihre Controversen*.

Adam Smith, and particularly his successors, as Ricardo, MacCulloch, J. B. Say, and all the so-called English school, follow the deductive method. They start with certain views of man and nature, and thence deduce the consequences. Rossi accurately characterized this method when he said, "Political economy, considering that it deals with general principles, is rather a science of the Reason than a science of observation. Its end is the reflective apprehension of the relations that grow out of the nature of things. It seeks for laws in basing itself upon the general and constant facts of human nature." In this system, man is considered as a being everywhere and always pursuing his private interest; prompted by this motive, good in itself, since it is the means of his preservation; he seeks his own utility, and no one can discern that better than he himself. If then he is allowed to act as he wishes, he will succeed in procuring for himself, all the happiness which it has been given him to attain. Hitherto the state has always checked the full expansion of economic forces; but remove these restrictions, allow all men to freely devote themselves to the pursuit of well being, and the true order will be established in the world. Universal and unrestricted competition places each individual where he is best suited, and gives him a just return for his labor. As Montesquieu says, "It is competition that sets a just price on merchandise." It is the infallible regulator of the industrial world. It is like a providential law, which, in the complicated relations of men joined in society, causes order and justice to reign. Let the state abstain from all interference with human business; let it leave entire liberty to property, capital, labor, exchange, callings; and the production of wealth will reach its maximum, and so the general well-being will become the greatest possible. The legislator need not concern himself about the distribution of wealth; that will take place conformably to natural laws and unrestricted trade. A phrase uttered in the last century by Gournay, sums up this whole doctrine—*laissez faire, laissez passer*.

Under this theory the problems relating to the government of society becomes wonderfully simple. The statesman has only to cross his arms. The world will go on of itself. It is the optimism of Leibnitz and Hegel transferred to politics. Based on this philosophic doctrine, economists enounce certain general principles, applicable in all times to all peoples, because they are absolutely true. Political

economy is essentially cosmopolite. It takes no account of the division of men into separate nations, and of the different interests which may result from this: no more than it regards the particular necessities or conditions growing out of the history of different states. It sees only the good of humanity considered as one great family, such as all abstract science, and every universal religion, especially Christianity, regards it.

After thus having set forth the old doctrine, the new economists criticise it. They charge it with viewing things from one side only. Say they: "Man doubtless follows his own interest, but more than a single motive acts upon his soul and controls his acts. By the side of selfishness there is the feeling of collectivity, *gemeinsinn*, sociability, which is seen in the formation of the family, the district, the state. Man is not to be compared to an animal, which knows nothing but the satisfaction of its wants; he is a moral being, who knows how to obey duty, and who, moulded by religion or philosophy, frequently sacrifices his pleasure, his well-being, even his life, for his country, for humanity, for truth, for God. It is then an error to base a series of deductions upon this aphorism, that man is governed by the single motive of individual interest. 'These general and constant facts of human nature,' from which Rossi would deduce economical laws, are an imaginary conception. In different countries, at different epochs, men obey different motives, because they make for themselves different ideas of well-being, of law, morals and justice. The savage procures his subsistence by the chase, and at need by devouring his fellows; the citizen of the ancient states, by reducing men to slavery, in order to live on the fruit of their labor; the modern man, by paying them wages."

Men having, according to the different states of civilization, different needs, different motives, different methods of production, distribution and consumption, it follows that economical problems do not admit those general and *à priori* solutions, which are demanded of a science, and which she too frequently ventures to furnish. It is always necessary to examine the proposed question in relation to a given country, and so it is necessary to rest upon statistics and history—hence, the historic and "realistic" method, as the *Katheders-Socialisten* express themselves; that is to say, a method founded on facts. In politics also it is to-day admitted that the question is not to discover an ideal constitution suited to the

abstract man, but forms of the government which are the best, relatively to the traditions, the intelligence, the temperament, and the needs of this or that country.

According to the *Katheder-Socialisten*, it is also an error to hold, as Bastiat does in his *Harmonies Économiques*, that the general order results from the free play of individual selfishness, and that it is consequently sufficient to remove all hindrances in order that well-being should come to each in proportion to his efforts. Selfishness urges men to wrong and spoliation; it is then necessary to repress it, and not give it free course; to do this is the mission first of morals, then of the state, the instrument of justice. Without doubt, if men were perfect, and desired only the good, liberty would be sufficient to cause order to reign; but such as men are, unrestricted interests lead to antagonism, not to harmony. The manufacturer desires that wages should fall, and the workman that they should rise. The landlord endeavors to raise the rent, and the tenant to lower it. Everywhere the strongest or the ablest triumphs; and in the struggle of selfish interests, no one cares for the demands of morality and justice. It is especially in England, where all restrictions have been abolished, and where industrial liberty most completely reigns, that the strife of classes, the antagonism between masters and workmen, is presented most strikingly and under the most alarming aspect. It is also in this country, *par excellence* the country of *laissez faire*, that the intervention of the state has been most frequently demanded to check the abuses of the strong and to protect the weak. After having disarmed power, they have conferred upon it daily new privileges. Does not this prove that the economic doctrine of absolute liberty does not afford a complete solution?

The new economists do not profess that horror for the state which causes their predecessors to call it now a canker, and now a necessary evil. On the contrary, for them the state, representing the unity of the nation, is the supreme instrument of right and justice. An emanation of the vital forces and intellectual aspirations of a country, it is charged with the duty of fostering its development in every direction. As history shows, it is the most powerful agent of civilization and progress. Individual liberty should be respected and even stimulated, but it must submit to the rules of morality and equity; and these rules which become more and more strict as the ideas of justice and goodness become clearer, must be imposed by the state.

Liberty of industry is an excellent thing. Free exchange, freedom of labor and contract, have contributed enormously to increase the production of wealth. All restrictions upon this liberty, if any still exist, should be removed; but it is the duty of the state to interfere when the manifestations of individual interest happen to be in opposition to the humane and civilizing mission of political economy, and tend to the oppression and degradation of the inferior classes. The state has thus a double mission: first, to maintain liberty within the limits marked out by right and morality; secondly, to grant its aid wherever the end—which is the progress of society—can better be reached in this manner than by the efforts of individuals; as in the improvement of harbors, means of intercommunication, the development of education, sciences, arts, or any other object of general utility. The intervention of the state should not be always rigorously repelled, as economists wish; nor always sought, as the socialists demand: each case should be examined separately, taking account of the needs to be satisfied and the resources of private undertaking. It is simply an error to think that the *rôle* of the state is narrowed as civilization advances; it is to-day of a nature quite different from that under the patriarchal or despotic regime, but it continually widens as new avenues for human activity are opened, and as the appreciation of what is lawful and what is not becomes clearer. This notion has also been exposed in France with much force by Mr. Dupont White, in his book *L'Individu et l'Etat*.

The Katheder-Socialisten also reproach the orthodox economists with confining themselves too exclusively to questions touching the production of wealth, and of neglecting those which concern distribution and consumption. They hold that they have considered man as a productive force, without taking sufficient account of his destiny and his obligations as a moral and intelligent being. According to them—thanks to the wonderful results of science applied to industry—it would already furnish sufficient products, if all labor were usefully employed and if so much of human effort were not squandered in the gratification of false or even vicious desires: the great problem of our time is what is called the social question, that is to say, the question of distribution. The laboring classes wish to better their condition, and to obtain a greater portion of the wealth created by the union of capital and labor. Within what limits and under what conditions is this possible? To know this, is the problem. In

presence of the evils which vex and threaten the body social, three systems have been presented: one, which extols a return to the past and the re-establishment of the ancient regime; socialism, which looks for a radical change in the social order; lastly, the orthodox economy, which believes that all will be settled by freedom and the operation of natural laws. According to the *Katheder-Socialisten*, no one of these three systems meets the difficulties which the present presents. A return to the past is impossible; a general and sudden modification of society is no less impossible; and to invoke liberty is to be satisfied with mere words, for it has to do with a question of right, of the civil code and the social organization. Distribution takes place not merely by virtue of contracts, which evidently ought to be free; but principally by virtue of civil laws and moral sentiments, the influence of which must be considered, and their equity determined. It is wrong to approach economical problems isolatedly; they are intimately connected with psychology, religion, morals, law, customs, history. We must take all these elements into account, and not be contented with the uniform and superficial formula of *laissez faire*. The antagonism of classes which has always been at the bottom of political revolutions has in the present re-appeared with a more serious character than ever before. It seems to imperil the future of civilization. The evil cannot be denied; it is better to study it under all its phases, and to endeavor to find a remedy in successive and rational reforms. It is from the *morale*, from the sentiment of justice and Christian charity, that these inspirations must be demanded.

To sum up:—While the economists, starting with certain abstract principles, believe that by the deductive method they reach conclusions perfectly demonstrated and universally applicable, the *Katheder-Socialisten*, resting on the study of facts past and present, draw from thence by the inductive method relative solutions which are modified according to the state of society to which they are to be applied. The first, believing that the natural order which regulates physical phenomena ought also to govern human societies, hold that, all artificial restrictions being removed, from the free play of callings will result harmony of interests, and from the full enfranchisement of individuals will result the best social order and the largest well-being. The second, on the contrary, think that on the economic plane, as among animals, in the struggle for existence and the con-

flict of self-interests the stronger crushes or takes advantage of the feebler, unless the state, the organ of justice, interferes to see that each receives what legitimately belongs to him. They are also of the opinion that the state ought to contribute to the progress of civilization. In fine, instead of teaching with the orthodox economists that complete liberty is sufficient to put an end to social conflicts, they hold that a series of reforms and ameliorations, inspired by sentiments of justice, is necessary, if we are to escape civil dissensions and the despotism which they bring in their train. The new school has been especially developed in Germany. This is due to the fact that political economy has there been ranked among the sciences "*Camérales*," that is, those which treat of the state. It has never been there treated as an isolated branch, governed by special laws; even the orthodox disciples of the English school, like Rau, have never failed to recognize the intimate relationship between it and the other social sciences, especially politics, and they have readily referred to facts. As soon as the ideas of Smith and his disciples began to spread in Germany, they encountered critics who considered not the increase of wealth, but the general progress of civilization, such as Professor Lueder and Count De Soden. Then came List, Stein, Roscher, Knies, Hildebrand; and to-day there is a legion—Nasse, Schmoller, Held, Contzen, Schäffle, Wagner, Schönberg, G. Hirth, V. Böhmert, Brentano, Cohn, Von Scheel, Samfer.

II.

Let us try to find out what of truth there is in these views of the new school. In the first place it is certain that the basis, the character and the limits of political economy have not been accurately determined, nor its relation to other sciences of the same order. "Although he must blush for the science," says Rossi, "the economist must admit that the first questions to be examined are still these: 'What is political economy? what are its object, extent and limits?'" This observation is well founded: even in the "Dictionary of Political Economy," the writer, Mr. C. Coquelin, charged to determine the exact idea, does not succeed in determining whether it is an art or a science. He wishes to make a science of it, which, with Destutt de Tracy, he defines "the group (*ensemble*) of truths which result from the study of any subject." He adopts these words of Rossi: "Science has to do only with ends; as soon

as one busies himself with the use he can make of it, he falls into art. Science is nothing else than the possession of truth :” and Mr. Coquelin adds—“To observe and describe real phenomena, is science ; it does not advise, prescribe or direct :” yet, after having accepted this definition, the perplexity of Mr. Coquelin is great, and he admits it. Even the Dictionary in which he writes contains many articles, the most important of which are not satisfied with observing and describing, but on the contrary advise and prescribe, condemn this institution or that law, and demand its repeal. Political economy would then be only an art, and not a science. He admits that it is both at once ; but when he tries to draw the line of separation, he makes this singular confession of inability : “Shall we endeavor, at present, to make a clearer distinction between the science and the art by giving them different names? No ; it is sufficient to have noted the distinction ; time and a better understanding of the subject will do the rest.” The indefiniteness and obscurity which we meet in most authors, when the attempt is made to define the object of political economy, proceed, perhaps, from the fact that they try to make of it a science of observation like natural history, or an exact science like mathematics, and that they claim to find in it fixed and invariable laws, like those which govern the physical universe. Let us try to clear up these two points ; since they are fundamental, the true character of political economy will appear from the discussion.

Three categories of sciences are generally distinguished : exact sciences, natural sciences, and moral and political sciences. The exact sciences are so called because speculating on clearly defined, abstract ideas, numbers, lines, points, geometrical figures, they arrive by reasoning correctly at perfectly rigorous and unassailable conclusions ; such are arithmetic, algebra and geometry. The natural sciences observe and describe the phenomena of nature, and endeavor to discover the laws which govern them ; such are astronomy, physics, botany, physiology. Moral and political sciences take notice of the ideas, the acts of men, and the creations of the will,—institutions, laws, religion ; these are philosophy, morals, law, politics. In which category must political economy be placed ?

Certain writers, among whom are Messrs. DuMesnil-Marigny in France, Walras in Switzerland, and Jevons in England, have attempted to resolve certain economical problems by placing them

in algebraic problems. I do not think that they have by this means cleared up to any great extent the difficult points to which they have applied this method. Economical phenomena are subjected to a great number of diverse and variable influences which cannot be represented by figures; they do not yield to the rigorous deductions which mathematics admit of. The ideas which are considered—the wants of man, the value of things, wealth—are by no means fixed, and the variations are dependent on opinion, on fashion, custom, climate, an infinite number of circumstances, which it is impossible to bring into an algebraic equation. Political economy cannot then be ranked in the category of exact sciences. It has been held as a grievance: it has even been refused the title of a science, because it cannot reach the rigorous results of mathematics. On the other hand, it is in this very fact that, from a certain point of view, its superiority and its greatness consist. It cannot claim to reach conclusions absolutely rigorous, because it speculates not on abstract and precisely-defined elements, but on the wants and acts of man, a free moral agent, “undulating and diverse,” obedient to motives which can neither be determined with precision, nor, above all, measured by numbers.

Most of the economists, either by the definition which they give the object of their studies, or by the idea which they have of their mission, make of it a science of observation and description—“a branch of the natural history of man,” as Mr. Coquelin says. This writer, in order to make his thought clearer, explains it thus: “Man studies anatomy in the physical constitution of his being; physiology in the play of his organs; natural history, such as Buffon and his successors study it, in his habits, instincts and needs, and with respect to the place that he holds in the scale of being: political economy studies him in the combination of his labors. Is it not one part of the studies of the naturalist, and the most interesting, to watch the labors of the bees within the hive, to study their order, their combinations, and their conduct? Well, the economist, in so far as he cultivates simply science, does exactly the same with respect to that intelligent bee which is called man; he observes the order, the manner and the combination of his labors. The two studies are absolutely of the same nature.” According to this view, it is evident that political economy is not a moral science. It deals neither with realizing a good, nor attaining an ideal, nor in performing duties; it is suffi-

cient to observe and describe how the human animal works to satisfy his wants. J. B. Say held this view when, at the beginning of his famous book, as a title for that extensive work, he gave the definition always quoted since: "A treatise on political economy, or a plain exposition of the manner in which wealth is produced, distributed and consumed." Bastiat, with that precision of language, that vivacity and brilliancy of style, which frequently hide quite superficial ideas, has frequently insisted on making a purely descriptive science of political economy. "Political economy," says he, "prescribes nothing, does not even advise anything; it describes how wealth is produced and distributed, just as physiology describes the play of our organs." Bastiat believed that he enlarged the authority of economical principles, by attributing to them the "objective," disinterested, impersonal character of the natural sciences. He forgets that all his writings, and his zealous activity in behalf of free trade, contradict his definition.

In a book, well written, but in which the very rigor of the reasoning discovers more plainly the error of the premises when they are false, Antoine-Elisée Cherbuliez expresses the idea of Say, of Bastiat and of Coquelin with even more precision: "Political economy," says he, "is not a science of human life or of social life, nor even of the material well-being of man. It would still exist, and would change neither its object nor its end, if wealth, instead of contributing to our well-being, should not at all conduce to it, provided that it should continue to be produced, to circulate and be distributed." The author, in order to give the science an absolute character which it cannot have, proposes an hypothesis in fact contradictory. He forgets that an object is wealth only because it satisfies some one of our wants and contributes to our well-being. To suppose wealth which does not add to our well-being is to admit that there is wealth which is not wealth.

The economists who attribute to political economy the strictness of the exact sciences, or the objective character of the natural sciences, forget that it is a moral science. Moral sciences do not restrict themselves to describing what is; they also say what ought to be. A queer moralist he would be, who should content himself with analyzing the passions of man, but who should neglect to speak to him of his duty! The end of moral sciences is precisely this—to determine our duty toward God, toward our fellows and toward our-

selves—which things are what we must do or not do in order to reach that degree of perfection which it is given us to attain. So also in politics, it is not enough to enumerate the different forms of government which exist, nor even to draw up an ideal constitution for perfect men; it must teach us what institutions are suitable to such a people or such a condition of things, and which are most favorable to the progress of the human race. For this reason it will not place in the same rank despotism which stifles human freedom, and liberty which develops our noblest qualities; but it will also explain under what conditions free institutions can prove lasting, and what faults or weaknesses render a despotic government inevitable.

So also the economist cannot content himself with describing how wealth is produced and distributed. This indeed would require a long study, and much more difficult than Say and his disciples seem to imagine; for it would not be enough to study what takes place in a single country, as the methods of production and distribution differ among different nations: but this is only the smallest part of the labor of the real economist; he must also show how men ought to organize themselves, how they ought to produce and distribute wealth, in order that they should be, in the best manner possible, provided with those things which constitute their welfare. Nor is this all: he must search for practical means of reaching the ends pointed out by him. So in one country he finds internal duties between provinces, or toll-houses stopping goods at the gates of all cities; will he confine himself to stating the fact, as the naturalist does, and as Bastiat and Cherbuliez wish? Evidently not: he will show the injurious results of these institutions, he will advise their abolition, and he will seek by what means this can be reached. Is he a citizen of a country which thinks to augment its power and prosperity by making its neighbors afraid by the extent of its armaments? he will not hesitate to demonstrate that no people has any interest in subduing or weakening others; and that a nation can sell its most costly products advantageously only if it has rich neighbors in a condition to pay for them. Have not the economists themselves, M. Bastiat at their head, forgetful of their definitions, devoted all their energies to advising and imploring the abolition of protective tariffs? Did they content themselves with observing and describing, when they were getting up their *Free Trade* collection, and when

they were running from meeting to meeting to determine public opinion?

Between the natural sciences and political economy there is a fundamental difference, which has not been sufficiently brought into notice. The first are occupied with the phenomena of nature—determinate forces which we can only discover, not change. Moral sciences, and consequently political economy, have to do with human facts, the results of our free will, which we can change so as to render them more conformable to the demands of justice, duty and our welfare. Also observe how differently naturalists and economists go to work. The first see earthquakes overthrow cities, the planets cool down and lose every trace of animal or vegetable life. They search for the causes of these facts; they make no claim of modifying them. On the contrary, when economists find laws, rules or customs unfavorable to the advancement of well-being, they oppose them and endeavor to secure their abolishment. As the physician who, having made a diagnosis of the disease, points out the proper remedy; so the economist ought at first to take account of the evils which society suffers, and then to point out the means of alleviating them. Roscher has said that political economy was the physiology of the body social. It is, indeed; but it is still more: it is the *therapeutics*.

That which has infected with grave errors, and especially singularly limited economic studies, is the fundamental idea common to Adam Smith and the philosophers generally of his time, that social matters are governed by natural laws which would lead man to happiness were it not for the defects of institutions. The philosophers of the eighteenth century believed in the native goodness of man, and in a natural order. It was the fundamental dogma of their philosophy and their politics. As Sir Henry Maine has shown, this theory came from the Greek philosophy, coming down by the Roman jurists and the *Renaissance*. "Everything coming from the hands of nature is good," Rousseau perpetually repeats. "Man is naturally good," says Turgot. On this idea applied to the government of societies, Quesnay and his school have founded their doctrine, which they very properly call *physiocratie*, or the government of nature—that is to say, the authority restored to natural laws by the abolition of all human laws which hinder their operation. Adam Smith borrowed from the physiocrats the foundation of the ideas of his famous book "On the Wealth of Nations," which he would even have dedi-

cated to Quesnay if the death of the doctor had not prevented. He believes, like the physiocrats, in the code of nature. "Remove all restrictions," says he "and a simple system of natural liberty will establish itself." Cliff Leslie, in his fine study of the political economy of Adam Smith, has completely shown how everything in the eighteenth century went to corroborate this system of complete liberty, based on the idea that had been formed of the goodness of man and the perfection of nature. From the Reformation begins that grand intellectual movement which aims at civil and religious liberty, at equal rights, and which rebels against the tyranny of priests and kings. Seeing government and bad laws impoverishing the people by unjust taxes, hindering labor by absurd regulations, ruining agriculture by crushing burdens, those who were devoted to social questions came of necessity to demand the abolition of all these human institutions so that society might return to a better order, which was called natural right, natural liberty, the code of nature. It was under the lead of these ideas that the physiocrats in France and Smith in England marked out the programme of economical reforms, and that the French Revolution attempted its political reforms. The starting point of that profound revolution which involved all Europe in the movement—peoples and sovereigns, from Naples to St. Petersburg—was an enthusiastic confidence in reason and the good sentiments of man, as in the order of the universe; it was the optimism of Leibnitz brought down from the clouds of philosophical abstraction and applied to the organization of societies. The good sense of Voltaire led him to detect the error of the system, and he wrote *Candide* and *La Destruction de Lisbonne*. Rousseau, in a letter of touching eloquence, defended optimism, which is the foundation of his ideas, as of those of his epoch and of the French Revolution.

Curiously enough, it was Fourier who showed the final consequences of the physiocratic optimism of the economists. Selfishness and the vices of men seemed to give the lie to the idea that everything is good, and that under liberty everything would arrange itself for the best, in the best of worlds. It has, indeed, been said that private vices contribute to the general welfare. Smith also maintained that, pursuing only their own interests, men would always do what was most useful for the nation; and that the rich, for example, in seeking only the gratification of their desires, would

secure the most favorable distribution of products, "as if they were guided by an invisible hand." "Nevertheless," they go on to say, "we must combat selfishness and repress vices." This is to recognize a disturbing element; everything would not then arrange itself for the best in virtue of absolute liberty. Fourier, with a logic that stopped at nothing absurd or immoral, like Plato, constructed an ideal state, the phalanstery, in which all passions were utilized as productive forces, and vices transformed into elements of order and stability—in which, consequently, there was nothing to check. That was indeed natural liberty, the reign of nature. They made order from disorder. As Caussidière showed in 1848, Pierre Leroux has fully shown that Fourier also found the germ of his system in the voyage of Bougainville, which showed to the eighteenth century, in the Eden of the isle Otaheite, a picture of the happiness enjoyed by the man of nature, freed from laws and human conventions. Diderot echoed the enthusiasm provoked by this piquant sketch of primitive manners. It was logic; if everything is good in nature the natural man ought to be our model. Unchecked *laissez faire* conducts us to Tahiti.

Up to the present time most of the economists have remained in subjection to the ideas of physiocratic optimism, which presided over the birth of their science in France as well as in England. They speak forever of the natural order, of society, and of natural laws. These they invoke, and these only they wish to rule. Not to multiply citations, I will take only one, from one of the most eminent and least systematic of contemporary economists, H. Passy. "Political economy," says he, "is the science of the laws in obedience to which wealth is produced, distributed and consumed. Now we have only to state these laws and insist upon their application. The end to be reached is the greatest good of all; but the most advanced economists do not doubt that natural laws lead thither, and they only, and that it is impossible for men to substitute their ideas for those of divine wisdom." This is a concise statement of the pure economical doctrine on this point. Now it will be easy to prove that this idea is void of meaning, that it answers to nothing real, and is in radical opposition to Christianity and facts.

I look for these "natural laws," of which they are all the while speaking, and I do not find them. I understand how these words are used, when we deal with the phenomena of the material uni-

verse; which, indeed, judging by the infinitely little we know of them, appear to obey immutable laws. I also grant that we invoke natural laws for animals, which live and are nourished in the same manner, but not in the case of man—that being, capable of improvement, whose manners, customs and institutions are ceaselessly changing. The laws which govern the production, and especially the distribution of wealth, are very different in different countries and at different times. Where, then, are these natural laws in force? Is it, as Rousseau, Diderot and Bougainville believed, in the islands of the Pacific, where the spontaneous products of the soil permit man to live without labor in the bosom of an innocent community of goods and wives? Is it in antiquity, where the slavery of laborers procured for an admirable few (*élite*) of the citizens the means of attaining the ideal of a true aristocracy? Is it in the middle ages, under the sway of the feudal system and of the corporations, in that golden age when the papacy commanded peoples and kings? Is it in Russia, where the land belongs to the czar, the nobles, and the communes, who periodically divide the entire territory among all the inhabitants? Is it in England, where, owing to the right of primogeniture, the soil is the monopoly of a few families? Or is it in France, where the laws of the revolution divided the land between five million proprietors, at the risk of dividing it (*émietter*) into minute fractions? Manufactures were formerly produced at the domestic hearth, by an artisan aided by a few companions; now they are produced in immense shops, by an army of workmen, in conjunction with the relentless movements of steam-driven machinery: which of these methods of production is conformable to the natural order? Primitively the earth was everywhere the undivided property of the tribe, and this rule was so general that we certainly might have seen in it a law of nature; now, in countries which have reached the industrial stage, individual ownership, which once claimed only movables, is extended also to fixed property: is this a violation of the order of providence? Under the pressure of new ideas of justice and of certain economical necessities, all social institutions have been modified, and will probably still be modified. To seek to improve them, then, ought not to be forbidden, if one believes them to be perfect. "Let everything be," says the economist, "liberty will answer for all." No doubt; but what must I do? Laws do not make themselves; we vote for them.

Now, it is the duty of the economist to instruct me what laws ought to be adopted. He will say with Passy: "Men should not substitute their ideas for those of divine wisdom." But is the civil code, which at present determines the distribution of wealth in France, an emanation of the divine wisdom? Is it not rather the product of the juridical conceptions of the men of the French Revolution? When one, as for instance Le Play, wishes to re-establish freedom of bequest; or when it is proposed, as in the Belgian Chambers, to limit the remove in relationship of the right of succession, *ab intestato*, does he violate the decrees of divine wisdom? The economists forget that the foundation of the entire economical system among civilized nations is a code of laws framed by legislators, and that they can consequently be changed if necessary; and not a system of pretended immutable natural laws, to which we must submit blindly and forever.

In societate aut vis aut lex viget, Bacon has said: If you will not have the reign of law, you fall under the reign of force. Among men in a state of nature, everything belongs to the strongest. The rôle of the state is, on the contrary, to cause justice to preside over the distribution of goods, and that each one should enjoy the fruits of his own labor. Remove all interference of the state, and apply the absolute *laissez faire*, everything is a prey, as Bossuet says. The best armed slays him who is not so well prepared for the struggle; he devours his flesh or the products of his labor. This is precisely what happens among animals; where, in that struggle for existence of which Darwin speaks, the best endowed species take the place of those less so. The positive economists also say, conformably to the idea of Darwin, that every better position is the result of superior aptitudes in him who has secured it. Very well: every man has everywhere all the well-being he is entitled to, just as every country has the government which it deserves. So much the worse for the feeble and the simple—room for the strong and able! Force is not superior to right, but force is a necessary attribute of right. This is the law of nature.

Those who continually invoke natural laws, and who reject what they call artificial organizations, forget that the government of civilized countries is the result of political and economical art, and that the natural government is that of savage tribes. There Darwin's law reigns as among the brute species; no regulations, no state, no

restrictions—perfect liberty for all in everything. That was indeed the ideal of Rousseau, true always to the idea of the code of nature. On the contrary, civilization consists in a struggle against nature. As agriculture and industry are perfected, we make more and more use of artificial means, invented by science, to procure the means of satisfying our wants. By the art of healing and preserving health, we combat the maladies with which nature affects us; and so we raise the average of life from twenty to forty years. It is by the art of government that statesmen cause order to reign, and permit men to work and better their condition, instead of continually fighting like wild beasts to defend or avenge themselves. It is to the art of making good laws that we owe security of property and of life. It is in resisting our passions that we succeed in doing our duties. All is the result of art, because civilization is the complete opposite of the state of nature. The man of nature is not that good and reasonable being dreamed of by philosophers; he is a selfish animal, seeking to gratify his desires, with no thought for the rights of others; unconscious of wrong, destroying whoever opposes him; and all the restraints of morality, religion and law are none too much to render him obedient to the demands of the social order. The wild beast in him must be subdued, or he puts civilization in peril. It was then a dangerous error to believe that it would suffice to disarm the state and free men from every restriction for order to establish itself.

In political economy I discover but one natural law—that is, that man, in order to live, must support himself. Everything else is governed by manners, customs, laws, which are continually modified according as justice and morality extend their empire, departing further and further from the order of nature, where force and chance reign. If there is one law of nature which seems unavoidable, it is that which commands all living beings to procure for themselves the means of subsistence by their own efforts; yet man has succeeded in freeing himself from this law, and by means of slavery or service we see the stronger live at ease at the expense of the weaker. No doubt everything that happens takes place by virtue of certain necessities, which can strictly be called natural; but it is the struggle against these necessities which leads to change and perfection in human society. From the fact that institutions or laws exist, we

cannot thence conclude that they are necessary, immutable, and that none but these are conformable to the order of nature.

III.

The physiocratic optimism which gave inspiration to political economy in its first stages, and which is still intermingled in almost all its speculations, is not only contradicted by facts, but is opposed to the fundamental principle of Christianity. A certain school has reproached political economy with being an immoral science, because it urges man to the pursuit of material good only, and to live for his senses only. Since the object of political economy is to seek how societies ought to be organized to arrive at the general well-being, it deals with material advantages; in this it removes itself only from asceticism, not from Christianity, which by no means demands that we should not have any passions; but the idea that order spontaneously establishes itself in society, as in the physical universe, by virtue of natural laws, is wholly opposed to the Christian conception of the world and of humanity. According to Christianity, man is so radically bad that it requires the direct intervention of God and the constant operation of His grace to keep him in the right way and save him: the world itself has become so evil that Christians for a long time have expected, and among certain sects still look for the palingenesis, "the new heavens and the new earth," according to the messianic hopes; the evil in us must then be opposed by the sentiment of duty, and that without us by laws in which the sentiment of justice is expressed. To believe with the orthodox economists that the best order will spontaneously result from an unlimited *laissez faire*, we must suppose man to be good, or necessarily obedient to inspirations which cause him to act conformably to the general good. This idea is not only the reverse of the idea of Christianity; it is wholly in opposition to the facts of the case. Unchain the human animal, and you have the war of all against all; the *bellum omnium contra omnes* of Hobbes of old in the pre-historic caves; the scenes of cannibalism, later in the forests of barbarous times, to-day in the spheres of industry. Even in nature there reigns no order of justice that we can take as a model; we find there at best a sort of brutal equilibrium, which we call the order of nature. In nature, as in history, the wrong frequently triumphs and the right succumbs. When a fishing-bird by patience

and skill has succeeded in seizing a prey which she is bearing to her famished brood, let an eagle—the brigand of the air—rush upon her and rob her of the fruit of her labors; the feeling of justice is aroused within us, just as when we see a lazy master forcing his slaves to support him by the products of their toil. If Cain, the hunter and warrior, slays Abel, the peaceful shepherd, we are for the victim and against the assassin; and so we continually rebel against the facts transpiring in nature and in society. The Chinese and those good women who see in everything that happens an effect of the divine will, are optimists of the same fashion as those economists who believe in the empire of natural laws. Physiocratic optimism is the same as “the judgment of God” and the ordeals, which are found among all peoples, for this custom springs from the idea that God always causes the innocent to triumph. Job, on the contrary, protests against this immoral doctrine; and Israel, conquered and dispersed among the nations, did not despair of justice, and waited for the day of restitution. No doubt the existing facts and the existing organization of society are the necessary results of certain causes, but these causes are not natural laws; they are human facts, ideas, manners, beliefs, which can be modified, from which modification there result other laws and other customs.

The theory of natural laws has had two other pernicious consequences; it has removed all notion of an ideal to be pursued, and it has singularly narrowed the conclusions of political economy. In the writings of the orthodox economists, the final end which we ought to endeavor to attain is never mentioned, nor the reforms which may be demanded by justice. Is distribution effected in the manner most favorable to the progress of humanity and the happiness of all? Is consumption conformed to moral laws? Would it not be desirable that there should be less want among the lower classes, and less luxury among the upper classes? Have we not economical duties? Since the primitive epoch, the social organization has been profoundly modified; will it not still be changed, and in what particulars? These are some of the questions which the official political economy does not touch, because, says one, they do not come within its field. We have seen that Bastiat and Cherbuliez have clearly indicated the reason. Strict science does not take account of what *ought* to be, but only of what is; it can neither propose nor pursue an ideal. It simply describes how wealth is pro-

duced, distributed and consumed; hence results the poverty of its practical conclusions. Indeed, if it is sufficient to proclaim liberty that everything may arrange itself for the best and harmony be established, its programme is pretty nearly finished in countries like England, the Netherlands and Switzerland, which have adopted free trade and free competition. It will no doubt have rendered a great service in inducing the removal of restrictions which hinder the expansion of productive forces and a better distribution of labor, but at present its rôle is almost finished. We have reached the last pages of the book; soon there will be nothing to do but to shut it up and lay it away with gratitude and respect upon the shelves of the library. On this point I believe that the criticisms of the *Katheders-Socialisten* are well-founded. While claiming to make of political economy an exact, rigorous science, its domain has frequently been too much restricted; it cannot be isolated from politics, morals, law, religion. Since it seeks to discover how men can best secure the satisfaction of their wants, it should tell us what are the forms of government, of ownership, of worship, the methods of distribution, the moral and religious ideas, most favorable to the production of wealth. It should point out to us the ideal to be attained, and the means of reaching it. To obtain liberty? this is accomplished: it is still necessary to know what use it is proper to make of it. In civilized society, no less than in the primitive forest, liberty, if it is not limited by the prescriptions of morality and law, ends in the oppression of the weak and the domination of the strongest or ablest. It will soon be seen in the domain of economy, no less than in that of education. It is the law of nature and of "selection," say the Darwinists. Very well; but if it crushes me inexorably, at least allow me not to bless it.

Justly also, I think, the official political economy has been reproached with enunciating as absolute verities propositions which in reality are contradicted by the facts; as if in mechanics one should formulate the laws of motion without taking into account resistance and friction. It is these abstract and general formulas which have inspired practical statesmen, like Thiers, with a profound distrust of economical axioms. I will cite a few examples: Since Ricardo, it has been a dogma of the science that wages tend to equalize themselves the same as profits, because free competition immediately brings an offer of higher wages when a greater return is promised.

Now, Cliff Leslie has proven by statistics collected in England and on the Continent that this equality of wages does not exist; and that, on the contrary, the difference, even in the same branch of industry, between different localities is greater now than formerly. It is also an economical axiom, frequently invoked in the recent discussions on the subject of the double standard¹ (*double étalon*) that an abundance of money is injurious, because business is carried on as well with a small as with a large quantity of money. And yet the daily quotations of the European stock-boards show that scarcity of money produces crises, while its abundance brings a reduction of discount, and consequently gives an impulse (*essor*) to production and business. Free Trade holds that the balance of trade is of no importance, since products are exchanged for products, and we have only to congratulate ourselves if foreigners furnish us goods cheaper than our countrymen. This would be true only if all peoples were one, and if all men were landlords. Suppose a people that should be compelled to sell abroad their bonds (*titres de rente*) and their manufacturing shares (*actions industrielles*). Products are exchanged for products; only it is the stranger, henceforth the owner of these stocks and bonds (*valeurs*), who enjoys the revenue which others labor to produce. If England could furnish France all manufactured products at a cheaper rate, the proprietary consumers would profit by it; but the French workmen, deprived of labor, would disappear or would go to practice their industry in England. So it was in France after the suppression of the provincial tariffs: the industries left the less favorable localities, to fix themselves where they found the most advantageous conditions. No doubt, from the cosmopolitan point of view of the human race, and considering all nations as forming only one, it matters little where population or wealth is accumulated, provided that progress is secured; but can we demand of a people that complete forgetfulness of their own interest in their own future? And besides, considering civilization in its entirety rather than wealth alone, is it not desirable that each nationality should preserve all its independence and all its force, so that each may play its note in the concert of humanity? It is at least in this point of view that political economy has been placed in Germany, especially since List, as it is there quite generally called National-economy.

¹ That is, a gold standard and a silver standard?—*Tr.*

I also think that the old economists have sought to reduce too much the rôle of the state. When we think of all the evil that bad governments have wrought the people, especially in France, we can understand the desire of reducing their power and restricting their attributes; but the school of *laissez faire*, at least in their theories, have passed the limit, and the countries which should absolutely follow their counsels would have cause to repent, as they would be excelled by others. England has seen this, and this country, model of self-government, far from persevering in the way recommended by the economists, annually grants new prerogatives to the state, which already interferes in the contracts of agriculture and manufactures, with a circumstantiality and with prescriptions that would scarcely be tolerated elsewhere. Prussia entirely, its territory, its military force, its agriculture, its industry, its religion, its education of all grades, the chief source of its power, is all the work of the state. Prussia, once the sands of the Marquis of Brandenburg, of which Voltaire and Frederic II. made fun, is to-day the German Empire. A few years ago a President of New Granada, imbued with the pure doctrines of economy, on taking his chair announced that "henceforth the state, brought back to its proper function, would leave everything to individual undertaking." The economists applauded. In a short time the public roads were ruined, the harbors filled up, security destroyed, education in the hands of the monks—that is, reduced to nothing. It was a return to a state of nature and the primitive forest. In Turkey and in Greece, the state does nothing, the treasury being empty. It is even dangerous to go on the spot to prove the benefits of the system. Suppose two countries of equal power and resources, side by side: in one the government carefully abstains from all interference, and in consequence individual needs consume all the products; in the other, the state deducts from the amounts consumed, frequently uselessly or even injuriously, certain sums necessary to maintain, on a large scale, all the services of public interest; it opens roads and harbors, constructs railroads, builds schools everywhere, largely endows all scientific establishments, encourages *savans*, revives high art, as at Athens; in short, by compulsory education and compulsory service, it takes possession of the young generation to develop their powers of body and mind. A half century passes; which of these two peoples will be the more civilized, richer, or more powerful? In

Belgium the state, by the construction of railroads since 1833, secured the economic existence of the country, by the development of its industry in spite of its separation from Holland, which deprived it of its principal ports of export. It is by the same means that Italy to-day cements her national unity, and that Russia is opening her grand future. The state has then a double mission to fulfil. The first, which no one denies, but which few comprehend in all its bearings, consists in securing order and justice in society; that is, to enact laws so far conformed to distributive justice, as the advancement of the social culture permits. The second consists in doing, by means of the resources levied proportionally from each one, everything that is indispensable to progress, when private initiative does not suffice.

An incontestable merit of the new economists is that they approach the social question in the true spirit of Christian charity, but at the same time in a spirit rigorously scientific; always relying on the facts of statistics and of history, and thus keeping themselves from the seductions of utopianism. In order to combat the socialists, Bastiat and all his school have supported the theory of the natural harmony of interests, and have found themselves thus brought to deny the very existence of the problem. This is a dangerous error. The social question, indeed, dates far back; it was born as soon as landed property ceasing to be held in common, the inequality of conditions was established. It was this that troubled the Greek republics and hastened their ruin; it was this that disturbed the Roman republic in spite of the palliative ceaselessly and vainly applied by the agrarian laws. It re-appeared in the communes of the middle ages as soon as industry was developed, and later, when the Reformation brought religious freedom to men, and when the French Revolution proclaimed the doctrine of equality and fraternity; but to-day it presents a character so grave and general that its study is demanded of statesmen, of publicists, and especially of economists—for it is a question of the salvation of civilization put in peril by the demands of the working classes. Among the principal causes of the great evolutions of history will always be found economical interests—a truth which Napoleon expressed rather brutally when he said, "It is the belly that makes revolutions." The new economists have published quite a number of special studies on one or other phase of the social question; and as they pride themselves

on being "realists," that is, that they rely upon statistics, they certainly contribute to the advance of the science. The entire scope of the new doctrine is yet quite vague, both in its premises and in its conclusions; and when it attempts to determine the relation between political economy and morals or law, it is less original, less novel, than certain of its most enthusiastic adepts imagine. To cite only contemporaneous economists, who have paid attention to the subject, it will suffice to mention the books of Dameth, Rondelet, and Baudrillart, and the work so well written, but unfortunately so badly translated into French, of Minghetti, now president of the council in Italy. Writers like Cliff Leslie, Luzzatti, Fredericksen, Schmoller, Hild, Wagner, Contzen, Nasse, have always seemed to me better armed than the school of Bastiat to combat the actual scientific socialism which wholly relies on abstract formulas and the "natural laws of political economy," to break down the social order, and demand its essential reconstruction. Bastiat has already compromised the defense by standing too exclusively on the ground of theory; for he has been led to contradict facts, and to deny doctrines admitted by all economists; for instance, the standard theory of rent. The "realist" economists, on the other hand, lay hold of principles, and rely upon facts, in order to go in pursuit of Utopia step by step, carefully distinguishing possible reforms from impossible, and the rights of humanity from the demands of covetousness and envy. The mission of preservation is to-day more than ever imposed upon political economy, in presence of new forms which socialism has recently taken, and the rapid development it has made, especially in Germany.

ÉMILE DE LAVELEYE.

THE NORTH AMERICAN BISON AND ITS EXTERMINATION.

THE Indian and the "buffalo" are ever associated in the mind as characteristic and inseparable features of the great interior of the North American continent, and especially so of the so-called "boundless plains" that extend from Mexico on the one hand nearly to the Arctic regions on the other, and from the Mississippi river to the Rocky mountains. And in many respects is this association by no means a fanciful one, the one depending in great measure for its

existence upon the other, and both alike fading away before the rapid westward advance of civilization—driven into the remoter wilds, as it is usually expressed, but, in reality, wiped out of existence—only the so-called remnants of the once populous bands of either remaining when a westward migration is forced upon them. The same fate evidently awaits both—complete extermination. Though both are noble in their way, both in a measure cumber the ground, and disappear but to give place to a higher grade of life and a fuller development of the natural resources of the continent.

Whenever civilized man has held sway, the fate of the larger animals has always been the same—to wit, a more or less speedy annihilation. In his subjugation of new countries not alone are the dangerous wild beasts of the forests, or those whose products render their destruction a source of rapid increase of wealth, sacrificed, but the inoffensive and less useful herb-eating species also wither before him as before a fatal blast, the prudent suggestions of self-interest yielding to the stronger love of destruction.

The history of our American bison but repeats the history of his congeners and affines elsewhere. His nearest relative, the aurochs of the old world, which in no very remote times roamed over the greater part of temperate Europe, survives now only, through careful protection, in the royal parks of the Czar of Russia in Lithuania, where its present representatives number but a few hundred individuals. The urus, which in prehistoric times existed over a much larger area, and which had a few survivors as late as the conquests of Cæsar, long since became extinct in the wild state, and has living representatives only in our domestic races of cattle, from whom they are in part descended. In our own country the elk, formerly numerous over the greater part of the northern and western portions of the United States, is now nearly extinct east of the Mississippi river, and is rapidly approaching extermination elsewhere. The common Virginian deer, formerly abundant throughout all the older States of the Union, exists now only here and there in the least settled districts. From the newer trans-Mississippian States and Territories come reports of the rapid disappearance of not only the elk and deer of those regions, but of the mountain sheep and the prong horn. In many of the parks and valleys within the Rocky mountains, from New Mexico to Montana, where, but a few years since, these animals existed in seemingly exhaustless numbers, they have already

been extirpated. But the case of the "buffalo," as our bison will always be commonly called, will doubtless be one of the most remarkable instances of extermination recorded, or ever to be recorded, in the annals of zoölogy. At the beginning of the eighteenth century, this animal occupied fully two-thirds of the temperate portions of North America; since which time its range has become reduced to an area not larger than that of the three territories of Dakota, Montana and Wyoming; while another decade or two, at its present rate of decrease, will be sufficient for its total extermination.

As is well known, the whole area between the Mississippi river and the Rocky Mountains has ever been the region of their greatest abundance, over almost the whole of which vast territory they roamed till within the last half century. Prior to 1830 they had already been pressed back for some distance west of the Mississippi, along nearly its whole length. The overland emigration that set in so vigorously about 1849, and the construction of the Union Pacific Railroad, served to greatly lessen their numbers, and to divide them into two distinct bands, known commonly as the Great Northern and Southern Herds. Incessant persecution on all sides, and especially of late along the lines of the Kansas railways (Kansas Pacific, and Atchison, Topeka and Santa Fé), has reduced the Southern Herd to a mere remnant of its former magnitude. While they are now massed principally south of the Canadian river, in Northern Texas, where for a time they may enjoy comparative immunity from the white hunter, they are still also scattered irregularly and sparsely over the western third of Kansas and along the eastern border of Colorado. The whole area occupied by the Southern Herd, which ranged but a few years since from the Staked Plains to the Platte, and from Eastern Kansas to the Rocky Mountains, does not embrace a region larger than the present State of Kansas.

The Northern Herd has suffered a like reduction in its range. As late as in 1850, it extended, in the United States, from the Platte to the British boundary, and from the Rocky Mountains to the plains of the Upper Mississippi and the Red River of the North, besides spreading far northward into the British possessions. South of the northern boundary of the United States it is now limited to the region drained by the principal southern tributaries of the Yellowstone—the Big Horn, Tongue, and Powder rivers—and to a nar-

row belt extending thence northward, across the Yellowstone, the Musselshell, the Missouri and Milk rivers, widening somewhat to the northward.

The vast restriction in its range that the bison has suffered, especially when it is remembered that this restriction has taken place mainly within the last fifty years, and chiefly within the last twenty-five years, is certainly a striking fact; yet, by this statement the destruction of life thus implied is by no means impressively indicated. The Buffalo, as is well known, is, like other bovine creatures, eminently gregarious, roaming always in herds, which usually number thousands, and sometimes millions of individuals. Some writers speak of having seen millions of buffaloes in sight at once; others have described the plains as literally blackened with them in every direction as far as the eye could reach. Others still speak of meeting with herds several miles broad; others of traveling through continuous bands for days together. It was not uncommon in former days for emigrant trains to be detained for hours by the passage of large herds across their route, while in later times the same experience has often befallen the trains on the Kansas railways. It is not to be inferred, of course, that the habitat of the Buffalo was ever wholly covered by dense herds; but the whole region above indicated as its habitat was roamed over by them, and all parts more or less frequently visited, the greater part of it annually.

The Indians have of course shared largely in the work of destruction, since the tribes that have lived within or near its range have depended largely upon these animals for subsistence, their flesh furnishing them with the chief part of their food, and their skins with clothing, beds and lodge-coverings. Though far less wasteful of the buffalo than the white man, the Indian often indulges in needless slaughter, generally killing far more than he needs or can use. When buffaloes are plentiful, the Indians commonly select only the choicest parts, and during the season when they kill them for their skins they rarely save any portion of the meat. Catlin relates an incident that came under his notice in May, 1832, near the mouth of the Teton river, which forcibly illustrates their improvidence. A party of five or six hundred mounted Sioux Indians crossed the river at mid-day, for an attack upon a herd of buffaloes in sight on the other side. After spending a few hours among them, they recrossed the river at nightfall, and came into the Fur Company's Fort with "fourteen

hundred fresh buffalo tongues, which were thrown down in a mass, and for which they required but a few gallons of whisky,"—not a skin nor a pound of meat, besides the tongues, being saved.

But the wanton, or at least reckless and almost useless, destruction of the buffalo by the Indians is scarcely comparable to that of the white man, whose contact with the buffalo has brought a constantly increasing rate of fatality to the doomed beasts. About a century ago, the white hunter, in what is now the State of Kentucky, first met with the buffalo, since which time his extermination has progressed with marvelous rapidity. At the beginning of the present century, this useful animal had already been exterminated east of the Mississippi river, in great part, too, wantonly. West of the Mississippi they continued to recede before advancing settlements, when, about 1820, their destruction became greatly accelerated by the trade in robes, which about this time began to assume considerable importance. From this date onward till within the last few years, the destruction of the buffaloes for their skins has done more than all other influences to hasten their extirpation—the slaughter for this object alone causing the destruction of hundreds of thousands each year. Throughout much of this time the number of robes actually purchased of the Indians has exceeded one hundred thousand annually, while as many more have been used by the Indians themselves. When it is remembered that the skins are in good condition during only one-third of the year—the portion of the year, too, when the smallest number are taken—and that good robes are furnished by only the females, those of the bulls being generally worthless for robes—some idea may be formed of the great number of animals annually destroyed by the Indians in pursuit of furs. Of late the trade in robes has greatly declined, owing mainly to the diminished number of buffaloes, but in part to the great reduction of the Indians themselves; but the difference has been more than made up by the wholesale destruction of the buffaloes on the plains of Kansas by the white men. No sooner had the railroads penetrated the habitat of the buffalo, than hunters swarmed to the region thus so favorably thrown open to them, and making these highways the bases of their operations, begun an exterminating war upon the vast herds, which ceased only with the supply of victims. In three or four years the buffaloes were swept from the country immediately adjoining these roads; nearly all being sacrificed for their hides;

which, at most, are worth but little more than the cost of gathering. It is said that during the season of 1872-73, not less than two thousand hunters were engaged in hunting the buffalo along the line of the Atchinson, Topeka & Santa Fé railroad alone; and that during this year not less than two hundred and fifty thousand buffaloes were slain, simply for their hides, their carcasses being left untouched on the plains. In a few years the buffaloes were wholly annihilated over hundreds of square miles of territory; and now, as if to hide even the evidence of their former existence there, their very bones are being gathered up and shipped to eastern markets for the manufacture of manurial phosphates. The best available statistics indicate an average annual destruction of between three and four millions for the last thirty or forty years. At this rate of decrease it is evident that the complete extermination of the buffalo will be soon effected; and thus an animal which, but a few years since, was the most numerous of its size in the world, will be swept out of existence.

The American bison, with his huge bulk, his immense shaggy mane, and peculiarly vicious-looking eyes, presents a far more formidable and dangerous aspect than his real character warrants, he being in reality timid and inoffensive. With lowered head and sullen mien, the old bulls will face an approaching enemy with a great show of determination and bravery, only to flee most ignominiously if their threatening demonstrations fail to appall their assailant. Indeed, one's nerve is put severely to the test when approaching a herd of these formidable-looking beasts for the first time. Only when wounded, however, and sorely pressed, will they turn upon their pursuer; and then woe be to the luckless horse and rider, or the more helpless footman, if they fail to escape the onslaught of one of these furious beasts. Ordinarily, however, they are far less dangerous to encounter than the half-wild domestic cattle of the Texas plains.

Like most bovine animals, the bison is sluggish and stupid, lacking in great measure the sagacity that so effectually protects most wild animals; and he hence falls an easy prey to his human foes. If the hunter is careful to approach the herd from the leeward, he usually has little difficulty in getting near it, the bison being not easily frightened by the sight of man or by the report of firearms, while the scent of an enemy, if unseen and a mile distant, will set

them fleeing in headlong haste. It thus happens that the hunter, in stalking the buffalo, approaches easily within close range, even without cover, by simply creeping on the ground; and with a breech-loading arm, loading without rising, often succeeds in killing from five or six to a score or more, before the herd finally takes to flight. If it slightly recede, the hunter creeps up under cover of the slain, and continues his murderous work. So indifferent are the buffaloes to the death of their companions, or so stupidly unconscious of what has befallen them, that they will not only stand and see them shot down around them, but the living have been known to playfully gore the dead, so little do they comprehend the situation. A single hunter will thus often kill fifteen to thirty at a single "stand," and sometimes sixty to eighty in a day. A hunter who acts as shooter for the party to which he belongs, will frequently kill two thousand to three thousand in a single season.

A moving herd of buffaloes will blindly follow their leaders, those in the rear pressing on unconscious of the danger into which they sometimes force their comrades at the front. Herds thus rush into the pounds prepared for their destruction by the Indians, or are decoyed by the same wily foes to the brinks of precipices, the presence of which those at the front discover too late to avoid, being pressed on by the main body of the panic-stricken herd; who in turn follow their leaders in the unlooked-for fatal leap. Again, in crossing treacherous streams, whole herds will heedlessly rush into the quicksands, or with similar blindness dash across the track of an approaching railway train. It has hence been said, and with some degree of truth, that the buffalo is endowed with only the smallest degree of instinct, and that this little seems rather to lead him into difficulties than out of them. This, however, is not quite true; since the blind rushing of a herd into danger results not so much from the stupidity of those in the front ranks as from their inability to turn aside after the danger is discovered, in consequence of the irresistible mass behind, unconscious of danger, forcing them onward.

As may be well imagined, the habits of the buffaloes, in their undisturbed daily lives, are not far different from those of grazing herds of domestic cattle. They indulge in similar gambols, and, when belligerent, in similar blustering demonstrations. The bulls are excessively fond of pawing the ground and of throwing up the earth on their horns, which they readily accomplish by lowering

themselves upon one knee. Particularly bovine also is the satisfaction they take in rubbing themselves against whatever will oppose resistance, whether it be rocks, trees, bushes, or the corner of a hardened clay-bank; the telegraph poles, however, which have been erected along the railroads that cross their range, afford them especial delight as convenient scratching-posts, and may be seen as well smoothed and covered with tufts of hair and grease from their unctuous hides, as are the posts about a farmer's cattle-yard. But what is very unlike anything in the habits of domestic cattle is their propensity to roll themselves on the ground; which, notwithstanding their seemingly inconvenient form, they accomplish with the greatest ease. But their greatest pleasure consists in rolling in the mud, or in "wallowing" as it is termed, from which exercise they arise looking more like an animated mass of dripping mud than their former selves. The object of these peculiar ablutions is doubtless to cool their heated bodies and to free themselves from troublesome insects; the coating of adhesive mud they thus obtain securing them immunity, for many hours after, from the attacks of the herds of mosquitoes and flies with which they are so much harassed.

Despite the apparently unwieldy form and awkward, lumbering gait of the bison, his speed far exceeds the progress he appears to make, while his endurance is so great that the fleetness and bottom of a well-trained horse will be severely tested in an attempt to overtake him. When pursued, or when urged on by thirst, rough ground and a tumble now and then seems scarcely to retard him; plunging down the steep sides of abrupt ravines and up the opposite slopes, as though such irregularities of the surface formed no obstacles to his progress. The buffaloes also exhibit astonishing expertness at climbing; often, when in quest of water, making precipitous descents, where it would be impossible to follow with a horse, and even where a man would clamber down with difficulty. Ordinarily, however, the bison shows commendable sagacity in his choice of routes, usually choosing the easiest grades and the most direct courses; so that a "buffalo trail" may be depended upon as affording the most direct road through the region it traverses.

That the buffalo is capable of complete domestication has been most thoroughly demonstrated; but as yet there have been no persistent, systematic attempts to perpetuate either a pure or a mixed race, nor to test its value as a draught-animal, or for other purposes.

That the buffalo is susceptible of domestication, and that it will breed freely with our domestic cattle, was well known in Kentucky and West Virginia nearly a century ago. As early as 1750 buffalo calves had frequently been taken by the settlers, and brought up among the the domestic cattle; being kept, however, mainly as objects of curiosity. According to Gallatin, a mixed breed was quite common ninety years ago in some of the north-western counties of Virginia; but they gradually became merged into the common domestic stock, through lack of a fresh supply of the wild blood. Other writers also refer to its susceptibility of domestication, and of the probability of its forming, though crossing with the domestic cattle, a superior breed of working oxen. More recently a most thorough test of the domesticability of the buffalo was made in Kentucky, by Mr. Robert Wickliffe, who bred them for a period of over thirty years, he obtaining his wild stock from the Upper Missouri country. The experiment was entirely successful, but the herd at last became merged with the common stock through neglect. The mixed breed proved larger than either the wild or tame stock, but were inferior in milking qualities, though they gave promise of forming a stronger breed of working oxen.

As yet no attempt appears to have been made to perpetuate an unmixed domestic race of the buffalo. Such a project, however, is not only feasible, but would doubtless be attended with profitable results. Experience shows that even the first generation are no more dangerous to handle than ordinary cattle; being far more tractable, in fact, than the half-wild stock of the Texas plains. If they should chance to prove incapable of rivaling our domestic race—the result of centuries of careful breeding—it might still be a profitable, as well as an attractive addition to our domesticated animals. Its capabilities as a mixed race should certainly be thoroughly tested, and no time is more favorable than the present. Many of our frontier settlers in Kansas, Colorado and Texas, live on the very borders of its range, thus enabling them to supply themselves with the young animals necessary for the enterprise with little cost or trouble, while the experiment could be tried under the most favorable circumstances possible, avoiding all the risks attending change of habitat and acclimation.

If the buffalo is doomed to be soon added to the list of animals known only in history or from their fossil remains, he will not dis-

appear without having played an important part in the history of the region he inhabited, or without having contributed something to the advance of civilization. After having formed for thousands of years the main subsistence of hundreds of thousands of the native inhabitants of this continent, his products have added greatly to the comfort of more civilized humanity, and rendered possible the exploration and development of our vast plains at a much less sacrifice of comfort and pecuniary means that could otherwise have been the case. Besides furnishing the pioneer settler with a sure means of subsistence until other resources became available, he has furnished fresh food to numerous private and government exploring parties, where it could not have been otherwise accessible. Hardly less important to the explorer has been its dried excrement—the *bois des Vaches* of the *Voyageur*—which has proved an unailing and invaluable substitute for wood, over the hundreds of thousands of square miles of treeless plains. In the narratives of military reconnoissances and other government explorations of this region, as well as those of private explorers and travelers, the first meeting with “buffalo-chips” is chronicled as an item of importance, intimately affecting the welfare of the party; as it not only generally gives promise of soon meeting with herds of the animals themselves, but ensures fuel for the camp-fire and for culinary purposes, in regions where supplies of firewood are either precarious or entirely wanting.

The presence in any country of immense herds of wild herbivorous animals, is of course incompatible with the simultaneous existence there of agriculture, and that the bison had hardly disappeared from the more fertile portions of our plains and prairies before vast fields of wheat and corn appeared over the same areas, shows that the time for his restriction had already come. If, however, he is allowed to become extinct without some effort to preserve for a time his existence in the more worthless portions of the public domain—portions that for a long time, if not forever, will be useless for agricultural purposes—it will be a truly lamentable and disgraceful fact in our nation's history.

From the facts already given it is evident that the buffalo cannot long survive unaided by government protection, and it is greatly to our disgrace that nothing has as yet been done to check the wholesale and almost useless murder of these defenseless beasts. No ade-

quate law for its protection has as yet been enacted, either by the general government or by that of the different States and territories which include portions of its range. How to best protect it, in regions so sparsely populated, and where laws are so easily set at defiance, presents by no means an easy problem, and yet one not hopeless of solution. The great traffic in hides could easily be greatly checked and wholly controlled. If allowed at all, the killing should be restricted to certain seasons of the year, and the destruction of the females and young wholly prohibited. Government inspectors should be appointed, and no sale of hides be allowed without their examination by these officers, while a suitable fine or other penalty should follow each violation of the law. Buffalo hunting should also be wholly prohibited during the period between June and October, and the destruction of females not allowed after the beginning of December. It should be further made a grave offense to kill a buffalo at any time wantonly, or without properly utilizing it. In addition to this, certain portions of the public lands now within the range of the buffalo, might be set apart as protected ground, within which no buffaloes should on any condition be killed, and within which the pursuit of them should be prohibited. It is a matter that demands prompt attention, and it is to be hoped that the present Congress will give it the consideration its importance merits.

J. A. ALLEN.

THE ART OF ENGLISH COMPOSITION.¹

GRADUATES of the University of Pennsylvania, who were present at the annual dinner of 18—, will remember the story told by "a representative of the press," of a letter received by him from an alumnus of the University, which was utterly unfitted for publication by its gross imperfections in spelling and construction. Their mortification was hardly diminished by the fact that the

¹(1). *English Grammar*, by the Rev. Richard Morris, London, 1875.

(2). *A School Manual of English Etymology*, by Epes Sargent, Philada., n.d.

(3). *The Art of English Composition*, by Henry N. Day, New York, 1875.

(4). *English Lessons for English People*, by the Rev. E. A. Abbott and J. R. Seeley, Boston, 1874. (Reprint of English Edition.)

(5). *The Art of Discourse*, by H. N. Day, New York, 1874.

same gentleman had told this same story at each dinner for some years, or by the plain violation of etiquette involved in an invited guest's assuming on such an occasion to offer suggestions for the improvement of an institution whose alumni were his hosts. The bitter truth remained that a man might indeed pass successfully through the usual college course, and yet be shamefully ignorant of his mother-tongue.²

With not dissimilar feelings must the English University men have read recently the confession of one of their number—a clergyman of the Established Church—that a man might acquit himself most honorably at Oxford or Cambridge, and yet, on the morning after his ordination to the ministry, be confronted by a task—the writing of a sermon in his native speech—for which he had not had, in all his years of study, any adequate preparation. The confession was made under peculiar and most solemn circumstances. Contained in a letter to the writer's bishop, on the occasion of the latter's ordaining certain candidates for orders—a ceremony performed distinctly in the name of the Holy Ghost—it was no doubt actuated by the purest motives and carefully confined to the strictest accuracy. And yet this most extraordinary letter begged the diocesan to warn these persons about to be admitted to an office that was believed by both them and him to be in direct succession to the ministry of 'Christ's chosen apostles, and in which they might confidently expect the all-powerful support of Him whose commission they bore—to warn these persons against an association formed for the purpose of supplying sermons for incapable or indolent parsons to preach as their own, and holding to weekly "black-mail," a large number of English clergymen. To be sure, the writer offered most charitably an apology for these erring brethren, that, on the day of their first attempting to write a sermon, they found themselves so unfurnished for the labor of composing English, that they fell before an unexpected temptation, insidiously placed in their way, bought just one sermon till they could collect their thoughts, and learned then, to their horror, that, unless they should continue their patronage of the infamous company, they would assuredly be exposed to their bishops and degraded from their ministry.

²At the time alluded to, the University was considered by so competent a judge as the late Rev. Albert Barnes to possess unusual opportunities for imparting a thorough education.

Nor is the mischief confined to the quarters already indicated. In our own land, and at the present time, (unless, happily, its existence has recently terminated,) there is a society exactly like that already referred to, which offers to write, not sermons only, but college-essays and even prize-compositions for the lazy or the stupid under-graduate, and this, too, at a comparatively moderate price. Unfortunately, it is (or professes to be) composed of college graduates, and justly claims, therefore, an intimate acquaintance with the precise want of each applicant. It is, hence, a more dangerous set of conspirators and, sad though it be, a more certain proof of the reality of the deficiencies which it proposes to meet.³

But even this is not all. A graduate of Yale, of less than two years' standing, assures the writer of this article that certain poorer students of that college gain a large part of their annual incomes by writing compositions of all sorts for their richer comrades, and that this practice has become a settled custom in New Haven. *Victorque Sinon incendia miscet insultans.*

With such facts as these before us—and others to the same point could only too easily be found—we shall surely be justified in asserting that there must exist among our young men of education a wide-spread incapacity to express thought in their native tongue. The law of supply and demand points from the existence of numerous purchasers to the existence of a very generally felt want. The opportunity for so dishonorable a trade, the free confession, on the one hand, and, on the other, the oft-repeated charge, of such desperate inability, all point to the same conclusion—that large numbers, very large numbers of our educated young men are not taught successfully the use of their own language—and this even at Oxford and Cambridge, where Latin and Greek prose and verse are a nearly universal accomplishment. It is the purpose of this paper to ascertain, if it can, the source of this vital defect and its remedy, and especially to inquire how far the failure of the instruction in Composition may be due to the character of the course of study usually pursued in our schools and colleges. Of course, it is fully understood that the failure of a system of education is not necessarily due to faults inherent in itself. But the presumption is certainly against

³The circular of this Society was actually sent to certain students of the University who were appointed by their fellows to represent them on Class-day.

any such scheme, when the greater part of those who are educated under it, are found alike deficient in one particular subject of the course. We are justified, therefore, in examining critically both the subjects included in the curriculum and the methods of teaching them.

And, first, at school. If "English" is taught at all,⁴ the usual course consists of Definitions (of words), Etymology, (perhaps,) Grammar, and Composition. Elementary at first, the instruction advances *pari passu* with the pupil's progress, until, in "the last year at school," it has reached advanced Syntax with Parsing, the Scholar's Companion, or a similar book of Etymology, and weekly exercises in writing upon themes appointed by the teacher or selected by the pupil himself.

Now it is plain, I suppose, that no one of these subjects of instruction can possibly be objected to. They are all necessary parts of an English course, and must owe their failure to circumstances, rather than to their own essential character. Let us ascertain, if we can, what these circumstances are, and, in pursuit of this object, consider the following suggestions:—(1st.) That the end in view in the English course at school has been wholly misconceived. (2d.) That Grammar (as the term is usually understood), "Definer," Etymology, and the practice of Composition do not constitute a complete course for the study of English; and (3d.) That the methods of teaching are all wrong, because they are founded upon this imperfect view of the course as a whole.

And (1st.) unless, perhaps, in schools of which the present writer has no knowledge, the whole idea of the course is inverted and its true purpose lost sight of. Definer, Grammar, Etymology and Composition are all taught as *ends*; whereas, with the single exception of Composition, they are *means*, means to the single end just named, to Composition. Why is the study of one's own language different from that of one's neighbor's? Why must a boy learn French or German by one method and English by

⁴In many schools English is not taught, except (perhaps) so far as Spelling and simple definitions go. Etymology and Composition are quite ignored, and Grammar taught only collaterally with Latin. If the pupil does not learn Latin, or is taught it badly, his state of mind may readily be conceived. Nay, even if he does learn Latin, and learn it well, he will have but a sorry substitute for the important laws of his own tongue.

another? We study a foreign language with a definite reference to its use, and by a method definitely aimed at this result. We study English apparently as if our sole purpose were to acquire and store away knowledge that we never dreamed of using. True, an English boy at school has already learned some English by the force of nature, and is therefore not in the same relative position as the beginner in French or German. But the child whose birthright has been stolen from him by his parents' giving him (in mistaken fondness) a foreign nurse, does not know the foreign language simply by having learned to speak it while he still ate infants' food. He must "improve his French" in later years, or at least weed out the corruptions that were firmly implanted by the rustic to whose teaching he was committed. Far oftener must he do exactly what any other child of English parents does, learn the language as an utterly unknown tongue. To be sure, such children, unless they reside abroad, must always learn English also, and thus are at the disadvantage of having "two mother-tongues."⁵ But the cases are sufficiently parallel. All children, whether they have imitated in infancy one or two modes of speech, are found still needing language-lessons in even their native tongue. The English studies of a school, therefore, should ever have reference to this need. That they commonly do so, however, is more than doubtful. Nay, it is certain that in general they do not. The several English studies are taught, but not the study of English. Definer, Etymology, Grammar, Composition, are so many separate English branches, and so appear on the school "report." To the poor benighted boy, though he is ever so earnestly seeking truth, they have no more unity than Grammar, Comparative Anatomy, and Botany. That they are steps leading by easy stages to a knowledge and an intelligent use of his native speech, seems never to occur to him—perhaps, never to his teacher. That he has learned English in the nursery is considered reason enough why, with slate and pen-

⁵Two mother-tongues! What bitter mockery! Almost as well two mothers; for language has a physical, as well as a moral nature. And yet American mothers, who might hand down to their children as an inheritance the noblest form of modern speech, voluntarily resign their privilege to an ignorant foreign peasant. An English-speaking peasant soon talks as her "lady;" a French or German girl despises her English mistress' even purer French or German.

cil, he shall "write a composition," that is, express thought in forms and constructions of which he knows only the outside, which he uses (it may be) in all the impurity of provincial habit and the contamination of vulgar associations, and which he comprehends as little as he can the metaphysics of Sir William Hamilton. He possibly never dreams that his lesson in definitions or his rules of Grammar have anything to do with his composition, unless his frequent misspellings and faulty syntax be referred to the books whose words he knows, but whose spirit he has never caught. Hence his composition is a dreaded task, more to be shunned than ten hundred lines of Virgil "after school," or even the notice of a summary flogging. No wonder that the boy leaves school unable "to express himself!" No wonder that the failure of the system leads boy and teacher to a downright shirking of the unwelcome work! No wonder that dishonest traders in ready-made sermons and prize essays flaunt their insulting offers! They know full well the weakness of the men they would seduce; they know the biting mental poverty that lays their victims open to temptation, as physical hunger leads other men to steal; they know how deep *in grain* the mischief has been set, and how long, how hard a struggle will be needed before reforms can be secured and their effects become apparent. And they are able to know all this and to practice their nefarious trade, chiefly because the mistake that is here pointed out has reduced the mental strength of so many boys to almost Oriental effeminacy.

That this divorce of what God has so closely joined together should be persisted in in the study of English, is the more remarkable, because it has now for so long a time been repented of in Latin and Greek, and (even more especially) in the modern languages. The modern system—Ollendorff's improved—by which each element of language, each rule of grammar, each idiom, each law of style, even, is exemplified in actual models and practised daily in writing and speaking, has widely⁶ superseded the older, stupid method of Grammar first, translation next, and speech or writing never. Those of us who were set at Andrews and Stoddard's Latin Grammar as our first Latin book, were advanced to the Latin Reader when we began the rules of Syntax, and then were forced into Cæsar or Virgil, know how vague our knowledge of Latin Syntax was through all our course, until, in the more merciful, though it then seemed to us

⁶I would gladly write *universally*.

the more cruel, Arnold's Latin Composition, we managed to understand in some degree, at least, the relations of the Subjunctive mood, the relative pronouns that constitute a *quasi* conditional sentence, or the mysteries of the *oratio obliqua*. By the newer plan, a boy will know more Syntax by the time he reaches Virgil, than thirty years ago the average student knew at graduation. Why? Because, from the first day of his Latin course, Grammar and translation go hand in hand—the latter both from and into Latin.⁷ Let the graduate of thirty years ago renew his youth by inspecting such books as Harkness' Introductory Latin Book and Leighton's Greek Lessons, on the one hand, and Harkness' Introduction to Latin Prose Composition and Jones' Greek Exercises, on the other.⁸ Teachers who have taught this method, assure us of the wonders it accomplishes. Why do they not apply it to English?

(2) Another circumstance which interferes with the success of the English studies at school, is that the course is inadequate. In order to see this clearly, we must look for a moment at the very foundations of the art of Composition.

The communication of thought in language⁹ contains necessarily two elements, matter and form. A third constituent—the end or purpose—will not come under notice here, and may therefore be omitted. The matter of discourse is thought; the form is determined, so far as the language is concerned, by Grammar. In order to compose, therefore, a boy will need both Grammar, for the form, and Logic, the science of thought, for the matter. But Grammar will include both Definitions and Etymology on the one hand, and Philology, or the history of language, on the other, as well as Grammar Proper—the pronunciation, spelling, classification and inflection of words, and their syntax or marshaling together into sentences. Neither Philology nor Logic, however, will be taught as formal systems, (which would be "too old" for boys at school,) nor even

⁷ All this is just as true for Greek.

⁸ These books are preferable, I think, even to Spencer's Editions of T. K. Arnold's series. Jones' Greek Exercises is based upon the Anabasis, and is most successfully constructed. A more advanced work, Boise's Exercises in Greek Syntax, fails in several essential points, especially in the inordinate length of its model-sentences, though in many other respects it is an admirable textbook.

⁹ Day's Art of Discourse, §§ I—8.

demand *direct* instruction. By Logic is intended only a simple digest of the more general laws of thought upon which the divisions and constructions of Grammar are founded, and which could be taught *orally* during the recitations in this latter subject. For example, any boy can understand the mental processes by which the class-noun is born, and will best reason by their aid to the other distinctions of nouns, proper and collective. So, the subject and predicate, which persistently elude his grasp when arbitrarily defined in an ordinary text book, become real things, when explained as the terms of a judgment which asserts their agreement or disagreement. Very young children even know perfectly well that one thing is, another is not, of a certain character, quality or description; for example, that a hat is, a shoe is not, round. Of course, it would be simply absurd to propose to them long, hard words; but it is very easy to add in the school to knowledge obtained in the nursery, to tell a child of nine that *round* in these sentences is called a *predicate* because it is said to belong¹⁰ or not to belong, to another word, and that any word is called a *subject*, when something else is said either to belong or not to belong to it. Long before the last year at school, a mind instructed thus would rise to the comprehension of *judgment, syllogism, mediate and immediate reasoning*, and a great array of other hard terms. By Philology, too, is meant only those very simple facts that most teachers know already, and which any teacher could easily glean from a few popular works on the subject; facts simple, indeed, but capable of being made mighty engines in the development of the opening minds of boys, or (to change the figure) of becoming skilful ushers of the timid seeker after knowledge into the dry and always difficult grammatical rule or dictum. That noun *means* name—not merely that “a noun *is* the name,” etc.; that singular *means* one¹¹, that “*I go a fishing*” is improper English now, because our modern idiom no longer requires a preposition before the participial, though the more ancient form of English did use it; that this word *a* is not the article, but the nearly as short word *on*, and that it is still left in such words as *aloft, ashore, etc.*; that the article *a* is not the original

¹⁰ This word is used, as other words are, and must be, in speaking to children, loosely.

¹¹ A friend assures me that he heard a highly educated man confess that this amazing truth dawned upon him first, after he had graduated from college.

form to which *n* is added before a vowel, but that it is a crippled form of *one*, which first became *an*, and, afterwards, before a consonant, *a*; that our "irregular" verbs are simply *strong* forms which have the power to say in themselves what the weak (or "regular") verbs must have the help of a termination to express¹²; that this termination was once an independent word meaning *did*, so that when we say "I loved," we really say "I love-did," or, as we often do say, "I did love;" that our language has "strong" nouns and adjectives, also; (e. g., *man, men; goose, geese; old, elder, eldest; better*, from a lost positive, *bat*); such simple philology would certainly not necessitate special lessons in the science, while it would serve both boy and teacher most faithfully.

The complete course of composition, then, would begin with the Definer, advance to simple Etymology and Grammar, and then, as the pupil grows older, reach the more difficult parts of these last two studies. At every point, moreover, the course must be made *real* by practical exercises, *clear* by reference to the history of words and forms, and *strong* by practice in thinking logically. Not until the last year, perhaps, will it become necessary or advisable to assign a "subject for composition" in the ordinary way; but it will certainly be found, when such a subject is assigned, that the boy has learned more of the art of composition without having written upon any set theme, than he could possibly have learned in the usual way.¹³

But does any one who is at all acquainted with our schools, suppose that this course of elementary training is in general persistently carried out? If so, let the possessor of this comforting faith select at random twenty boys, of from fourteen to sixteen years of age, and "quiz" them—if he possibly can, without their knowing what he is about. He will find, unless the writer's experience has been singularly unfortunate, that such a process of slow development is reserved exclusively for the mathematics and the foreign languages, (if, indeed, it is followed even with them), and that the average boy knows clearly and intelligently but little or nothing about his own language. Etymology and both the historical and the logical basis

¹² For simplicity, the other classes, the "mixed" and the "apparently strong" verbs may be omitted, at least until this primary distinction is well understood.

¹³ This plan will be more fully developed below.

of English are especially neglected in school. Many a boy of sixteen has never thought to derive *manly* from *man*, or to separate *headstrong* into its independent parts. That *-ly* means *like*, that *-tion* means *the act of*; nay, that these letters in words of which they are the suffixes, are *wholes* to be thought of by themselves, except as syllables—no one of these things has perhaps ever entered his mind. Occasionally an effort will be made to teach the history of English in our schools, but it only too often imparts views that are as archaic as the facts which it seeks to explain. Witness a certain book of Rhetoric and Composition,¹⁴ which the booksellers say is sold by the thousand, but which asserts the derivation of the Irish people and speech from the Phœnicians, and acknowledges for the other Celtic tongues a similar indebtedness. Or let that Etymology speak which divides the languages *of the civilized world* into Aryan and Semitic—an improvement upon the composition-book, to be sure, but unluckily an ignoring of the Turanian dialects which so happily illustrate one mode of word-formation in English.¹⁵ In like manner, the habit of thinking closely is but seldom thoroughly trained. The boy is allowed monotonously to cram on one day and *uncram* (I know no better word for the parrot-like recitation) on the next. Consequently, though he knows his grammar-book by heart, he can use but little or none of it. It is all dead matter, drift-wood started aimlessly on a current that leads only to the *via invia*, the ocean of utterly unrelated atoms.¹⁶

¹⁴ "An Advanced Course of Composition and Rhetoric, by G. P. Quackenbos." (See §§ 17-21.)

¹⁵ And yet this book, "A School Manual of English Etymology, by Epes Sargent," is unquestionably the best book for elementary instruction that has ever come under the writer's notice. Pardoning a very few such errors, it will be found to present most successfully the derivations of our language. It is the only exception I know to the remark made further on about similar works.

¹⁶ I once asked a new pupil, whose instruction had been of this illogical sort, to translate the first line of Virgil. He began: "Arms, the man, and, to sing." Yet he could repeat by heart the rules of Latin syntax, inflect any word, regular or irregular, and—better even than this—tell with amazing correctness where any form was "found." Under a system of constant close thinking, he soon came to construe Virgil, and even to write moderately difficult sentences in Latin, both successfully. He never dreamed, however, that he was learning Logic.

(3) As a consequence of all this, it happens that, even when these subjects are taught, erroneous methods of teaching them are often adopted. Grammar is treated as an abstract science—so abstract, in fact, as often to elude completely the grasp of the pupil. Made practical, on the one hand, by lessons in analysis and parsing, it is seldom, if ever, accompanied by lessons in synthesis, or composition. Definition is either the substitution of synonyms, (*circulus in definiendo*, as the old logicians call it,) e. g., justice is right, and right is justice; or, what is worse, perhaps, the interchange of negatives; e. g., wrong is not right. Even when no fault can be found with the definition, its practical value is destroyed by its not being used at once in composition. Exercises in composing short sentences containing the words defined used correctly in their several meanings, would “fix” indelibly (to use a dyer’s word) the instruction given by the definer. Etymology is commonly restricted to the Latin and Greek side of our composite tongue, and neglects completely the Anglo-Saxon element, although, in some writers, this latter source of English words is represented by more than ninety per cent. of their entire vocabularies, and is at least sixty per cent. of all the words in our language.¹⁷ Practical exercises, too, are sadly wanted in the instruction in this subject, and could easily be arranged to include Definition as well as Etymology.¹⁸ Because this is not done, but the monotonous task of “overloading” is persisted in, the English studies of the school course come to be uninteresting, positive inflictions upon both teacher and pupil. These, therefore, entrench themselves behind a proverb that is true for poets, but not for writers, and declare that Composition “comes by nature,” and not only needs no cultivation, but can not be cultivated. The English, therefore, is constantly neglected, or even entirely “hustled out of school.” Or, worse than this, the most conscientious efforts to teach Composition fail of their purpose. Strangely, too, confessions of this failure are most frequently heard from men who have been most successful in teaching other subjects, and from boys who have mastered everything else. Their one “hill of difficulty” is the Composition. In

¹⁷ See Marsh's Lectures on the Eng. Lang., I, pp. 118, sqq.

¹⁸ In both these respects Sargent's Etymology excels other books. It includes the Anglo-Saxon derivatives, and has suggestive exercises. The latter might be extended so as to require composition by the pupil,

the words of a most earnest friend, teaching Composition is no better than picking up stones from one heap, only to carry them across a field and pile them in another. "When I am done," he has added sadly, "I have only a heap of stones."

It will no doubt be asked by what plan exactly these views may be reduced to practice. The answer will involve, perhaps, some repetition, but shall be made as brief as possible.

The average American boy does not usually enter a school of the grade implied in this article before he is nine years old. He is then able to read, make figures, write a little, and spell easy words. He is certainly able to understand a simple definition, and to frame a sentence that shall contain the word used in the meaning assigned to it by the definer. For example, the word defined is *stove, a fire-holder*. After the word has been familiarized by an informal "talk," in which the pupil shall be stimulated to think for himself about the definition, and even to object to it, if he thinks it unsatisfactory, a sentence (or more than one, perhaps,) should be constructed in which the word shall be correctly used. The sentence-writing may be done at home or at school, on slate or paper, but should always be done again upon the blackboard, during recitation, after the word has been fully understood and *assimilated* (as physicians say) by the pupil. It will be observed, of course, that more is gained by this exercise than definition and composition. Spelling is practiced and extended, neatness and orderly arrangement are inculcated, and a habit of careful thinking trained. This "English" will require at least a year, (five lessons a week,) and the boy, therefore, be ten years old when he takes his next step.

This will carry him into his Etymology, but at first only to the prefixes and suffixes. Exercises will practice him in word-formation with given prefixes, stems and suffixes, and in the analysis of prefix and suffix from words assigned for the purpose. Definition will continue, spelling be made more and more familiar, and a new habit, analysis, be cultivated. A text-book will hardly be needed, but the teacher will find abundant material and suggestive exercises in Sargent's Manual, already alluded to. For this year, derivation may well be neglected, and the pupil's attention be directed to the auxiliary words only as *separable* and *significant*. Three lessons a week will, in most cases, be enough.

The third year—pupil's age, eleven; recitations, three a week

—will be the time for beginning elementary Grammar. The parts of speech and the *regular* inflections will supply work enough for the English of this year, when added to review lessons in Definition and Etymology. At every point efforts should be made to show the meaning of the terms employed and the origin and history of the words, (in the simple fashion already indicated,) and to connect the part of speech, in all its forms, with the nature of the thought to be expressed. [This, of course, by the child's Logic, exemplified above.] Practical exercises will require both the distinction of words, as of this or that part of speech, and the framing of sentences to contain such or such a sort of word. By this means Composition will be carried further, and the previous studies reviewed, since Definition and Etymology may be combined or alternated with the more strictly grammatical work. Teachers who have examined Morris's Grammar, (a volume of Macmillan's Literature Primers,) will certainly agree in giving it a place in this part of the course. It is short, (pp. 115,) clear, historical and etymological, and fully in accord with the latest discoveries in English Philology. Here and there the opinions expressed may not agree with those which a given teacher has been in the habit of holding; but they will surely be either new views to which the study of English has driven the grammarian, or will concern such matters as admit of two equally possible explanations. One thing the teacher will always find true of such points in the book—that they are the views of a large majority of English philologists, or opinions held by most respectable individual grammarians.

The subsequent course, (to cover three years, with not more than two lessons a week,) will extend and finish the school-work in Etymology and Grammar, and so complete the training in Composition needed for admission to college. Etymology will take up the stems on which our English words are formed, and then proceed to the sources and composite character of our language; Grammar will review and extend the simpler course of the year before, and then include Syntax, with Analysis and Parsing; while both will be supported by actual exercises in definition, derivation and composition of words, in framing sentences to illustrate every particular of inflection and syntax, regular and irregular, and in expressing thought, simple, complex and compound. Logic, (but still most elementary,) will assist the thinking, and Philology illustrate and embellish the

sterner truth. The number of hours assigned and the years devoted to this work will seem less strange, when it is remembered that Latin and Greek, Mathematics, History and (perhaps) one or two more studies, must share with English the hours of instruction. Undoubtedly, the fewer the studies the better; so that each may have as many recitations in a week as possible.¹⁹ But the five daily hours must be divided, and in the last years the English studies may well give way—not in importance, but in frequency of recitation—to the newer and more difficult classics and Algebra. The error in many schools is in *dropping* them, so that the boy comes “rusty” into college. If good ground is made in the early course, Composition can easily be “kept up” and materially extended by two recitations a week.

The text-books and exercises required in these last years deserve a more than a passing notice. The writer does not suppose that he is *introducing* them to his brother teachers; for they are not very new books. He has written this paper chiefly to call attention to a great defect which has been widely noticed among both boys and men, and to suggest a remedy for it. The remedy itself is not new. It was used in some schools years ago, but has too much fallen into disuse. But, as it is simply a course of study for which the books under review provide ample means, it seemed best to approach the subject through them. For this reason, the review of these particular books is not (it is hoped) an arrogant direction to gentlemen whose experience has been (in many cases) vastly greater than the writer's, and with whom the latter would gladly be compared in scholarship, but an attempt to advance ends which both they and he have warmly at heart. If this writing secure anywhere a more systematic use of these or equivalent text-books, it will have achieved its purpose.

Of Sargent's Etymology, something has already been said. It is presented here as the preferable school-book on its subject, both for the reasons already stated, and for the further reason, that it alone, of all the books of its kind examined, sets forth the relations of English to its kindred tongues, classifies the sources whence our composite vocabulary is derived, and makes the study *practical* for the

¹⁹ And, in the opinion of many of our most experienced teachers, for another and better reason also. The more the mind is concentrated in study, the greater the mental discipline.

purposes of composition, by exercises which a judicious teacher can easily extend and vary, so as to secure the interest of the boy-writer.

Day's Art of English Composition, or Grammatical Synthesis, as Prof. Day²⁰ himself calls it, is a successful reference of every fact and principle of Grammar to the laws of thought as indissolubly connected with speech. Written from the logical side of language, it does not neglect the historical view, and is withal not a difficult book. Every chapter is supplied with copious exercises, both oral and written, both analytic and synthetic—exercises which of themselves supply composition enough for the cleverest boys at school. They are entirely compatible, however, with the usual composition, which requires more inventive power than the exercises, and would be well supplemented by a monthly exercise in writing on a set theme. As compared, however, with the usual system of restricting composition to the latter work, they are infinitely more certain to promote the end in view. They are systematic, progressive, and require close thought. As a discipline for really strong, thought-full, effective writing, they are (perhaps) not to be surpassed. The whole work, indeed, strikes a deadly blow at "fine writing," being inspired (apparently) by a saying of Daniel Webster's, which Prof. Day seems fond of quoting:²¹—"All true power in writing is in the idea, not in the style;" and by the motto of its title-page:—Coleridge's saying, "He who thinks loosely, will write loosely."

With some points in Prof. Day's discussion of our grammatical system, however, most teachers and students of English will find fault. For example, he utterly disallows a Subjunctive Mood in English, contending that English grammarians have been too much influenced by their studies of Latin. The usual subjunctives he includes under the Potential Mood, and (as if by way of compensation) makes a new mood, the Necessary, to include all verbs with the auxiliary *must*. The Infinitive, (in accordance with the tendency of modern thought,) he calls a noun, and the Participle he treats as either an adjective or a gerund. The exact nature of the copula, too, and the fundamental use of the verb, will both, perhaps, challenge opposition; but neither these departures from usage, nor the seemingly greater one in the case of the moods, injures the book for com-

²⁰ H. N. Day, formerly professor in Western Reserve College.

²¹ See his "Rhetorical Praxis," *Preface*; and "Art of Discourse," page 40.

position-purposes. Prof. Day's views can easily be corrected by any teacher to suit his own opinions: the book will still retain its chief value. The curious reader may compare Prof. Day's treatment of the participle and infinitive with Mr. Earle's handling of them in his "Philology of the English Tongue." The thoughtful reader will wonder that one who has dared to be "a heretic," should not have ventured further and sought to do for the English Subjunctive as great an act of kindness as Prof. W. W. Goodwin has done for the Greek Conditional Sentences and Relative Clauses—*viz.*, to place them upon a basis at once simple, clear, and *practical*.

In conclusion, we must look at one more book, which can not but prove of value to boys preparing for college, although it will be absolutely indispensable for those boys only who are looking forward to active life at an age too early to allow them to go to college. *English Lessons for English People* "is not intended to supply the place of an English Grammar,"²² but addresses itself "to those who, having already a familiar knowledge of English, need help to write it with taste and exactness." "Aiming at practical utility, the book deals only with those difficulties which" its authors "have found to be most common and most serious." Its divisions are Vocabulary, Diction, Metre, Hints on Selection and Arrangement, and an Appendix which alludes to certain familiar errors in Reasoning, besides giving a Table of Consonants and ten pages of Questions and References to Exercises. To review this book fully would necessitate a transcribing of the whole table of contents. Every paragraph, or group of paragraphs, treats in wonderful detail a subject of the first importance to every writer. Synonyms, Anonyms, Hybrids, Consonant-Changes, (Grimm's Law,) and changes of Meaning in Derivation; the Diction of Poetry and of Prose, Styles of Poetry, Speech *vs* Prose, Slang, "Fine Writing," "Patch-Work," Tautology, Simile and Metaphor; Rhythm, Metre, Accent, Rhyme, Pause, Alliteration, and the kinds of Metres; Selection as opposed to Scientific Completeness, Argument, Arrangement, Plots, and Incidents in a Plot; the Sources of Knowledge, Sources of Error, Induction, Deduction, Analogy, Various Forms of the Fallacy, Certainty and Probability:—these are but a handful of the important topics that are treated in the three hundred duodecimo pages of this valuable little book. Some of these topics will have been handled by the

²²The Art of Composition, on the contrary, is just so intended.

pupil in following out the course proposed in this paper, and some of them generally constitute a part of the college-courses in Rhetoric and Logic; but even to the boy who is to have the higher education, this simple preparatory course will not be valueless, while to his less fortunate companion who must early become a worker, it will prove of almost inestimable benefit. The views expressed upon all the subjects alluded to are sound; the style of the writing is clear and pointed; and the illustrations, examples and exercises, all abundant. The book has another sphere of usefulness among those who have reached adult life without the opportunities for culture in this particular; but of this it is hardly in place to speak here. Teachers of all higher-grade schools will find the book a wonderful compendium of language-lore, and a faithful assistant in training their pupils to write "good English."

[*A second paper will examine the usual course of study pursued in college.*]

JNO. G. R. MCELROY.

NEW BOOKS.

GIORNALE DEL MUSEO D'ISTRUZIONE E DI EDUCAZIONE. Rome, 1875. Nov. No. 1. Dec. No. 2.

R. MUSEO D'ISTRUZIONE E DI EDUCAZIONE. Roma, Collegio Romana, No. 216.

We have received through Miss Annie Brewster, the well-known newspaper correspondent, a native of Philadelphia, living in Rome, these papers published in the interests of popular education. The editor of the Journal, Professor G. Dalla Vedova, desires to exchange his Journal with American educational journals, and to receive copies of all essays upon practical school work, both for actual use and to add to the growing library of his institute. The Italian Minister of Education, Bonghi, has done all in his power to forward the successful establishment of what may best be likened to a Teachers' Institute, strengthened and supplemented by the influence and support of the government. It is to make a scientific study of all that relates to the pedagogic art, so as to enable the school system of Italy to advance by strides as rapid as those of countries like our own, where universal popular education has so long been the cornerstone of all our national growth. We invite the attention of our contemporaries to this opportunity of spreading abroad a knowledge

of what is doing at home in the matter of public schools. The Bureau of Education at Washington will forward all books, papers, maps, etc., addressed to Professor Dalla Vedova, R. Museum of Instruction and Education, Rome, and we trust that every publisher of school books will send his contribution from America to Rome.

GUIDO AND LITA. *A Tale of the Riviera.* By the Right Hon. the Marquis of Lorne. With illustrations. New York: Macmillan & Co. 1875.

To the great body of Americans who think that they who dwell in kings' houses neither can excel nor wish to excel in any other career, it will be a surprise to learn that the Marquis of Lorne has published a poem, with illustrations said to be by the Princess Louise. It is quite true and singularly true that royal composition of any kind is as rare as the roc's egg, and we should have been genuinely and agreeably surprised if even a bad poem had come from one of the reigning family. Certainly none ought better than this selected class to entertain or instruct the people, and we suspect that the rarity of such an effort is due to unwillingness on the part of the purple to handle tools with which commoners may be more skillful, or to submit its work to the criticism of the general. But the son-in-law of the Queen is the son of a very learned and practical father, himself a distinguished author; and it is not remarkable, therefore, that he should be eager to take a place among the literary men by whom he has always been surrounded.

We shall tell the story of the poem, with occasional quotations from it, so that the reader may have, with the plot, some idea of its merits. The severe old Knight of Orles has alone, of all his neighbors, escaped even the attacks of the Saracens, who have over-run all the rest of the Riviera, that part of the Mediterranean coast of which Genoa is the centre.

"The elder knight, whose fierce and haughty mien
In his firm stride and on his brow was seen,
Was grizzled, swarthy, and his forehead worn
By scars of fight and time not lightly borne;
For the dimmed eye that gazed deep-sunk beneath,
Showed that the spirit's blade had worn its sheath;
And that full soon the years must have an end
In which, on friend or foe, that glance should bend."

p. 9, 16-23.

On the other hand his son Guido has just arrived at manhood, more versed in hunting than in war's alarm, and far more interested in the arrangement of his dress than in the careful military routine of his father's life. During a storm they take refuge together

in a fisher's hut, and Guido is entranced by the beauty of Lita, the fisherman's daughter.

"Ah! who can tell if noblest impulse lies
Within the magic of the meeting eyes;
Or, if the ruin of a life be where
The light falls softest on some golden hair?"

p. 19, 8-12.

We will be pardoned for traveling out of the record a little, to give our readers four very pretty lines out of a not otherwise excellent description of the moon.

"Or looks serenely down, when calms display
Her image multiplied in long array,
And o'er the waters, manacled in sleep
Casts her white arm, as mistress of the deep."

p. 20, 8-12.

Good fortune has saved Guido the trouble of making a man of himself, and it is worth while to see what the Right Hon. author thinks upon this point.

"What is possession of high place or state,
To him who, mocked by a pursuing fate,
E'en in his genius finds a dangerous bar
To turn his steps from Fortune's trembling star?
The finer temper that should make him rise
To be the leader in some great emprise;
To point the path, though mountains interpose,
To days of glory that no night may close;
May warp to tame fastidiousness, and wake
Loathing of tools he might have used to make
His phantom fancy change to sober truth."

p. 24, 10-22.

Guido cannot rest till he meets Lita; and when he does intercept her on her way to her father's hut, their converse is—

"And questioned, 'Whither went she?' 'To prepare
For those who thro' the day have labored, where
Yon path does lead.' 'Come they soon to thee?'
'Yea, if they get enough from out the sea.'
'Thou canst give them all for which they care?'
'Nay, sir, you know how humble is our fare.'
'To me it seems a feast for any prince.'
'Our pride, indeed, has risen higher since
Your gracious father said that he was pleased.'
'And wilt thou not believe that I was seized

With gratitude to her who, like the sun,
 Shone, when the storm dominion would have won?'
 'Oh! sir, you flatter me,' she said, and then,
 'But I must onward, or my father's men
 Will find naught ready. Sir, I must begone.'
 'Nay, have my words so little favor won,
 Thou wilt not offer me again some food?'
 'If you desire it. 'Twould indeed be rude
 And 'gainst my father's wish to close our door."
 'It is but for a moment, and the store
 Of thy sweet grace is all I now implore.'"

p. 30, 4-26.

This is the namby-pamby pastoral, or the genteel air of St. James. A little more of it would have ruined the book. Before the visit is over he tries to take the little fisher maiden's hand, and her conduct is admirably described.

"She shrank away from him—if not with fear,
 Yet with a start, as timid as the deer
 Who first has seen the long accustomed food
 Offered by strangers, and in doubtful mood
 Retires, distrustful for a space, to gaze
 If it spy danger in their novel ways."

p. 30, 20 to end.

But Guido is selfish; the wooing is too easy, and he is in danger of thinking the game beneath his mark.

"He looked upon her beauty and admired;
 He drank therein of joy as he desired;
 But while he stooped, his wishes to fulfil,
 Himself he saw, and self was master still.
 His pride untutored, and by time unbent,
 Saw in her silence only her consent;
 Read in her blushes consciousness alone,
 The sign of feeling he might make his own;
 Believed, (and half of what he thought was truth,)
 That victory waited on his brilliant youth;
 And with no shame there passed before his view
 That poorest triumph man can e'er pursue—
 The careless conquest of affections true
 That woman gives, not knowing she may rue!"

pp. 34 and 35.

At this juncture the Saracen commander, El Sirad, determines to capture Orles by a trick. His fleet swoops into the harbor, seizes all the villagers, Lita among the number, and puts to sea after letting some of the prisoners escape to spread the rumor that the Saracens

have sailed for Africa. This has the desired effect of drawing all the fighting men of Orles into the fleet in pursuit. Guido, distracted by the loss of Lita, takes command. Under cover of the night the Saracen lands his prisoners and returns to the harbor, and reinforces El Sirad in a terrible assault upon Orles. El Sirad, enamored of Lita, sends her to one of his own tents, and a very stilted verse describes her exhausted slumber.

"Time slowly passed; another evening came,
And still she lay, o'ercome by him they name
Restorer."

p. 61, 19-22.

"Nature's sweet restorer," we presume, "balmy sleep."

By the assistance of one of the Turk's wives, she escapes to Orles in the darkness and advises the Knight of the intended attack. The old man, with every human being in the castle rallied to his aid, makes a splendid defence, and is struck down just as Guido and his fleet return to make the victory complete. The rest is as usual.

The moral of the poem is the turning of an irresolute, foppish man, by his love for a fisherman's daughter, into a famous warrior. We cannot help thinking of the author as we read his poem, and hoping that his muse will develop into bolder and stronger flights. What he has done shows ambition, courage, industry and cultivation, though it lacks life and vigor.

HEALTH AND EDUCATION. By the Rev. Charles Kingsley. Pp. 411, 12 mo. New York: Appletons, 1874

LECTURES DELIVERED IN AMERICA, in 1874, by Charles Kingsley, Pp. 149. 12mo. Philadelphia: Jos. H. Coates & Co.

These two volumes have all the freshness of treatment and variety of matter, which characterize earlier collections of their author's miscellaneous writings. As the title of the first indicates, the papers which it contains are occupied partly with his favorite topic of an ideal physical culture of the race, partly with the still larger interest of intellectual training, for which he, as usual, advocates the study of natural history as wholesome, useful and edifying. The book closes with three biographical sketches—Buchanan, Rondelet and Vesalius—of which the first is the most interesting and the last the most curious. Dr. Draper might find in it a chapter of the "Conflict between Science and Religion," not in the least like those which he recently collected for his party pamphlet.

To most American readers the second volume is already known either in part or as a whole. There is therefore little to be said here about these Lectures; the bare mention of their names—Westminster Abbey, The Stage as it Once Was, The First Discovery of America, The Servant of the Lord, and Ancient Civilization—will

awaken pleasing memories in all who heard them. We cannot read a page of "Westminster Abbey" without hearing once more the tones in which it was spoken—the rough west-country burr, the accent of Devonshire, mingling with the slightly drawling utterance common to the cultivated classes of England. Nor shall we ever forget the evidence of disappointment with which this representative of the least oratorical of nations was heard by audiences who were accustomed to a far more effective and natural, as well as more polished delivery of speeches by our very politicians. But if we look from the manner of the orator to the matter and the spirit of these spoken words, all unfavorable comparisons are hushed. Here was a man who, like Milton, combined a passionate love of liberty with a passionate love of beauty, and interfused through both the highest and noblest Christian principles of right and truth. He had the conservative affection for the past; he had the boldest hopes for the future—and neither was a mere idle sentiment that ended in bare aspirations and feeling, for both were springs of life-long, energetic activity for the promotion of every good cause. He had his faults; he made great mistakes. But he was every inch a man, and in these few pages of his utterances to the American people there is the breath of the life that burned in the heart of "Parson Lot."

We notice a few errors in printing. On page 104 *Zarathustra*, instead of being given as the true form of *Zoroaster*, is turned into "the spirit of evil." On page 114, *Persians* should be *Medes*. Otherwise, the book is well got up.

THE NATURE OF LIGHT, with a General Account of Physical Optics.

By Dr. Eugene Lommel, Professor of Physics in the University of Erlangen. International Scientific Series. Vol. XVIII. Price \$2.00. New York: D. Appleton & Co. 1876.

The Preface to Dr. Lommel's work is so brief and pertinent, that we give it nearly in full.

"The object is to give an answer to the question, What is the Nature of Light?"

"In the first fourteen chapters the Laws of Reflexion, Refraction, Dispersion and Absorption of Light are demonstrated by experiment without reference to any theory of the Nature of Light. This comes forward prominently in the fifteenth chapter, and the conclusion arrived at being in favor of the undulatory theory, it is shown that this theory is not only in accordance with all the facts hitherto known, but also affords the most satisfactory explanation of the phenomena of double Refraction and Polarization, both of which receive subsequent consideration.

"Mathematical reasonings are wholly omitted in the text; where these are required or appear to be desirable for the more thorough and complete knowledge of the phenomena described, they are

given in the most elementary form, and are added as an appendix to the chapters.

"Numerous wood-cuts are introduced, many of which are taken from the Atlas of Physics of Johann Müller; the majority, however, are new, as is also a chromo-lithographic plate of spectra."

The object is satisfactorily accomplished, the illustrations and typography are admirable, and the growing interest in modern optical investigations will doubtless give the work a wide circulation.

No book, however, is perfect, and this little volume might be improved by a better recognition of the work of American students, and by a fuller index. It is hardly to be expected that the recent identification of the velocity of light with the limiting velocity between gravitating association and dissociation in the solar system, should yet have attracted much attention abroad, but there seems no good reason for overlooking the earlier similar identification, by Weber, Kohlrausch, and Maxwell, of the velocity of light as the connecting link between the Electrostatic and the Electro-magnetic units. Alter's description of metallic spectra, in Silliman's Journal for 1854, and the investigations of Draper, Rood, Rutherford, and Morton, should also have been noticed.

Prof. C. A. Young is the only American investigator mentioned, and even his name is omitted in the Index. Others, who are quoted in the text, but without index reference, are Arago, Bertholius, Brewster, Cauchy, Crookes, Fraunhofer, Hittorf, Janssen, Ketteler, Kirchoff, Lockyer, Plücker, Reich, Richter, Snellius, Thalen, H. Vogel, Wollaston, and Willner.

BOOKS RECEIVED.

The American State and American Statesmen. By William Giles Dix. 16mo., pp. 171, price \$2.00. Boston: Messrs. Estes & Lauriat, 1876.

The Christ of Paul; or, the Enigmas of Christianity. By George Reber. 12mo., pp. 397, price \$2.00. New York: Charles P. Somerby, 139 Eighth Street, 1876. [Claxton, Remsen & Haffelfinger.]

Angola and The River Congo. By Joachim John Monteiro. With map and illustrations. 16mo., cloth, pp. 354, price \$2.50. New York: Messrs. Macmillan & Co., 1876. [Porter & Coates.]

A Paying Investment. By Anna E. Dickinson. 16mo., pp. 120. \$1.00. Boston: Jas. R. Osgood & Co. [Porter & Coates.]

The Movements and Habits of Climbing Plants. By Charles Darwin, M. A., F. R. S., etc. Second edition, revised. Cloth, 12mo., pp. 206, price \$1.25. New York: D. Appleton & Co., 1876.

The Nature of Light, with a general account of Physical Optics. By Dr. Eugene Lommel. International Scientific Series. No. XVIII. Pp. 356. New York: D. Appleton & Co., 1876.

The Cotton States in the Spring and Summer of 1875. By Charles Nordhoff. Pp. 112. New York: D. Appleton & Co., 1876.

THE
PENN MONTHLY.

APRIL, 1876.

THE MONTH.

IF Mr. Disraeli carries his point, as he is so much in the habit of doing, the excellent middle-aged lady known to this generation so long as "Victoria, by the grace of God of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith," will become, also by the skill of Mr. Disraeli, "Empress of India." It is not easy for us to understand exactly why this addition to the title was necessary, or what the effect of the change will be. Indeed the spectacle of the House of Commons expending several evenings in the discussion of the matter, with men like Disraeli, Gladstone and Lowe giving their whole minds to it—Mr. Foster taking a part, and even Mr. Bright expressing his views in robust earnest—is one which Americans cannot perfectly appreciate. Of course had the question been one of conferring new political powers its importance would have been apparent. The Queen of Great Britain and Ireland has now little or no political power. She cannot name her own ministers nor appoint a tide-waiter in the Custom House; and why, we naturally inquire, should men debate for several evenings over three words more or less in her title? Perhaps, however, these three words have a significance all their own in Mr. Disraeli's eyes. Did not B. Disraeli, M. P., writing in 1845, put these words into the mouth of the Emir, seeking to stir the imagination of young Tancred: "Let the Queen of the English collect a great fleet; let her stow away all her treasures, bullion, gold-plate and precious arms;

be accompanied by all her Court and chief people, and transfer the seat of her Empire from London to Delhi. There she will find an immense empire ready-made, a first-rate army and a large revenue. In the meantime I will arrange with Mehemet Ali. He shall have Bagdad and Mesopotamia and pour the Bedouin Cavalry into Persia. We will acknowledge the Empress of India as our suzerain, and secure for her the Levantine Coast. If she like, she shall have Alexandria as she now has Malta: it could be arranged." And has not B. Disraeli, M. P., in 1876, agreed to the Andrassy note, and made important arrangements with the grandson of Mehemet Ali? And is not this recent step the next one in his gorgeous scheme? Of course it is all a joke, for B. Disraeli, M. P., is never more than half in earnest; and he is now, no doubt, laughing heartily in his capacious sleeve. But the very gorgeousness of the joke must be pleasant to him whose good fortune it has been that he is so little of an Englishman and is so much of an Oriental. "I am an Arab," said Fakredeen, "It is something." "I am a Jew," might say Disraeli, "It has been everything."

VON ARNIM'S last bit of straw has broken the back of the impatient and ill-natured German camel. His recent pamphlet "Pro nihilo" has, it is said, brought upon him an accusation embracing the charge of high treason, and a summons to appear before the High Court of State in Berlin was served upon him at Florence in February. He disregarded it, and the Emperor accordingly has refused his application for a safe conduct to visit his son, who is sick in the Prussian capital. The success of the Count's attempt to fight the Emperor and Bismarck is certainly not encouraging to others of their enemies who may have been willing to follow his example. He is a completely ruined man; and while Bismarck may have been merciless when once aroused, Von Arnim has really his own vanity and arrogance to blame for the result.

MISERY loves company, and one would hardly be human did he not feel a sort of satisfaction at the assurance that all the rascality in the world is not indigenous to this country nor confined within the limits of this government. The Belknap business is a paltry matter compared with the recent performances of the Marchese Mantegazza. It seems that that virtuous nobleman—a man of previous high char-

acter and great influence—needed money (speculations in railroads being the cause thereof)—upon which he prepared certain bills to the amount of several million francs, and forged on them the signature of the King. Obtaining then an audience of the easy-going monarch, he watched his chance, and coming out of the king's room went at once to one of the latter's secretaries, a fellow nobleman, requesting him to certify that the signatures were genuine. They were clever imitations, and the other, having seen the truthful Marquis come directly from the king, accepted his story and gave the certificate, naturally supposing that his Majesty was in the "desperately short" condition of ex-Senator Carpenter, or of the Apostle who confessed his lack of the precious metals. The bills circulated magnificently, as such things do for a while, but the time of payment arrived and the ingenious Marquis came to an untimely arrest. He has told his story (they all do now-a-days), and obediently to the well-known formula, being a "guilty man" will not be suffered to "escape." This is a bad thing to tell about, and reflects no credit on the human race; but the report of it comes over here opportunely, to say the least.

When German Counts steal, Italian Marquises commit forgery, and married English Countesses elope with married heirs to dukedoms, it is only fair to conclude that democratic institutions do not breed all the worldly wickedness of which we read.

DON CARLOS has at length left Spain to peace. His cause would have seemed hopeless long ago in any other country; but in Spain, which breeds revolutions and revolts, which ends a five years' struggle by setting up the dynasty to overthrow which it began it, with a population strongly bigoted, grossly ignorant, and very fond of fighting—which gave the name of "guerrilla" to warfare—it is not strange that he was able to keep up the contest for so long. The priests, too, who still exercise in Spain a power which smacks of medieval times, were his zealous champions, and the Biscayan and Navarrese peasantry were devoted to his flag. He has gone, however, at last, after causing innumerable sorrows, across the frontier into France, across France to Boulogne, across the channel into England. In that asylum he will no doubt remain awhile, watching another chance. If it be true that the Alfonsist government pro-

proposes to signalize its triumph, not by any bold and liberal measure of reform, but by recalling to Madrid that walking compendium of all matronly virtues whom men call Isabella, he may have another chance before he dies.

FRANCE takes at last the real form, if she breathes not yet the true spirit of a republican government. The Senate and Chamber of Deputies recently elected have met and organized, the Duke d'Andiffret Pasquier being chosen President of the upper, and Mr. Grévy of the lower house. Both are excellent men. The latter particularly is one of the ablest and best Frenchmen in political life. French in the energy and vigor of his character—English in his fairness and respect for law—almost German in his calmness under trial. Jules Simon will be a leader of the Republicans in the Senate, where Victor Hugo represents Paris and civilization. Gambetta and Thiers must be the imposing figures of the other chamber. Dutaure, the head of the new ministry, is one of the safest statesmen in France to-day, to use an adjective not often in place in speaking of his countrymen. He is a very able lawyer and an adroit politician, and seems, unlike so many of his predecessors, to have energy without arrogance and able to be firm without exasperating his adversaries. But take him all in all, Gambetta is the most remarkable figure in France to-day. A radical of the radicals when conservatism ruled with an iron rod, a dictator usurping in a great crisis the supreme powers and using them as he pleased, he is, now that the Republic is fairly under way, calm, temperate, conservative. He promises better than any man of his age, and if his life be prolonged will make for himself a permanent place in history.

AMERICANS have had reason very often in the last seven years to feel a satisfaction that the State Department was in the hands of Mr. Fish. The fear of what might happen were he to resign, and the President's peculiar practice in appointments exercised to fill his place, has made many men and newspapers tender in their comments on the Secretary. Some things, it is true, few could commend. His course during the Vienna Exposition, in suspending on the charges of Mr. Jay against Col. Van Buren, not only that individual but also all the innocent, unaccused assistant commissioners, and that without a word of explanation or excuse, seemed both

hasty and unjust. Nor was the matter mended when, without settling the dispute, he suffered the deposed commissioner to be sent to a foreign consulate. His treatment of Mr. Motley was harsh in the extreme, and he has acquiesced in a series of appointments that have reflected little credit on the country. Steinberger's performances, Newman's pilgrimage and some other things, have laid him open to criticism. He has not been just at times to the Centennial, and much of the false impression which prevailed abroad with regard to it and its aims and character, was due to his incapacity to understand or unwillingness to believe the truth concerning it. But on the whole men have realized, to some extent, the difficulties with which the Secretary of State of General Grant has had to contend in his efforts to carry on his department intelligently and with honor—they have known Mr. Fish to be a gentleman and a man of character, and have sought to excuse him for the exceptions to a general rule that has been excellent. On this very account, however, it is hard to understand his action in the Schenck matter, which is now uppermost in all men's minds.

The retention of the General so long in London seems, as we said last month, a blunder, but the manner of his taking off is both a blunder and a shame. The American Minister is to-day reported as having resigned. This, to-morrow's Washington despatches authoritatively deny. Then we hear that he is coming home on leave. He so writes to the London journals, and starts for Liverpool. A constable, armed with a writ, meets him at the station, and is respectfully referred to Lord Derby. When he is two days at sea, General Grant sends in the name of Mr. Dana, "vice Schenck, resigned." It turns out now that his resignation, twice offered and pressed more than two weeks ago, has long been in Mr. Fish's hands, and that when the General stood under the sacred folds of the stars and stripes at Euston Square, in all the magnificence of his Embassadorial uniform, and gracefully reminded the astonished constable of his diplomatic privileges—he had in reality stepped down and out of his high office, and was entitled to wear only the comfortable, but not picturesque costume of an American citizen. It would seem, on the first reading of the now reported despatches, that the General himself had not been guilty of bad faith. He had telegraphed, tendering again his resignation, if his remaining embarrassed the Administration. To this, Mr. Fish replied that, "the

despatch required no answer." Suddenly, on the heels of Belknap's fall, another telegram is sent, accepting the resignation. Surprised, Schenck asks for leave to come home and testify about the Emma mine, following his telegram at once himself. Disgraceful as the manner of his exit is, it is even aggravated as a national annoyance by the evidence that the President and Secretary have suffered the English Ministry and People to be thus deceived. It looks like double dealing, if it is not; and in such things as this, the appearance is almost as bad as the thing itself.

THE name of Mr. Dana has so long been honorably known in literature, politics and law, that his appointment in the place of Schenck has been hailed with satisfaction everywhere. The English journals have vied with our own in praise of the selection, and General Grant has had a new sensation since the news was published. All men have felt that such a minister to England would reflect credit on the country as well as the Administration, and the nomination alone did much to check among Republicans the dismay which Belknap's dishonor had created. In the midst of these rejoicings come two gentlemen not of the general mind. One is a well known writer on international law—the other is an authority of a different kind. They are not friends of Mr. Dana's—nor of his friends, perhaps. They are profoundly impressed, both of them, with the necessity for a thoroughly excellent minister to England. They are agreed unanimously that Mr. Dana is not such a man. "He is a literary pirate and has stolen my thunder," says the first, whose name is Lawrence. "He ran against me in the Essex district," says the second, whose name is Butler. "He is deficient in moral sense" says the former—"and even scratches the ticket," says the latter, with a groan. A very immoral man, they both again agree. Such things, though they come from the lips of publicists and sinners like Wm. Beach Lawrence and Benjamin Franklin Butler, cannot fail of effect upon a committee of which Messrs. Cameron, Morton, Hamlin, Conkling, Freylinghuysen and Howe form the majority. The charge of literary piracy in itself would actually shock the fine feelings of several of these gentlemen. "He has stolen notes"—one can imagine the chairman saying, in a tone of sorrow—"Governor Lawrence says he has stolen notes! As bad as bribery! though no one mentions the amount for which they

were drawn." "He has scratched the ticket," we hear them all cry out. "Ben. Butler can't vouch for his Republicanism! We can confirm none but real Republicans, as sure as Beach Lawrence is a publicist and Cushing's Minister to Spain!" The truth seems to be that Mr. Lawrence and the Wheaton family are engaged in litigation which has involved Mr. Dana, the more recent editor of Mr. Wheaton's works. Charges of plagiarism are easily made, and not always easy to disprove, even when no fault has been committed. But these have long ago been completely and conclusively answered to the satisfaction of all who know the facts. Charges of scratching tickets and bolting bad nominations are happily becoming more frequent every day, and sometimes do not need an answer. If the Senate Committee were made of different stuff, the spectacle of Ben. Butler opposing the confirmation of Richard Henry Dana would be laughable—as it is, however, there is real danger at this writing that the best appointment made by General Grant since he put Bristow in the Cabinet, and one which has given the party and people new heart for the moment, will be defeated on the *ex-parte* statements and out of deference to the personal enmity of Mr. Lawrence, a Northern Democrat with Southern principles, and of General Butler, the most dangerous adventurer yet bred by the hot sun of American politics.

At last, after two years of patient labor—at last, after two years of feverish expectation—at last, after two years of animated lobbying, Pinchback has been unsuccessful, and Senator Morton mourns. Not as one without hope, be it said, but still as a man who feels how saddest of all things is the "might have been." By a very close vote, in which six or seven Republicans voted with the Democrats, the dusky gentleman was refused admittance, and the doors of the Senate cruelly shut upon the "honored representative of the twilight millions." It seems rather late in the day to accuse a Senate, of which Mr. Revels was a respected member and in which Mr. Bruce is sitting to-day, of hostility to Mr. Pinchback on the ground of color; but this, of course, has been done. There are minds which could be made to think that the whole question turned upon the color of the applicant's hair or the length of his nose, and with such there need be no attempt to wrestle. The result, however

damaging to Mr. Morton's personal prospects, is received with satisfaction by Republicans generally, who accept its influence on this or that candidate's chances with strange equanimity. No good is unmixed, perhaps, and the Senator from Indiana would be the last man to hesitate between his own advancement and that of any great principle. The people know this, and are comforted.

NEW HAMPSHIRE has gone Republican by at least three thousand. After a campaign of unexampled activity on both sides—with many distinguished speakers pouring out their eloquence like water night after night, and local committees their own, or other people's money, as lavishly on just or unjust—with the fall of Belknap coming in the midst of the campaign to encourage and dishearten—the Granite State has gone Republican. Judicious observers have warned us not to accept the issue, no matter how it went, as very significant, because it would depend on the expenditure of money; and this may be true. Still this much is certain: The result, following the scandals at Washington, is very reassuring to the Republicans and correspondingly depressing to their antagonists. If it strengthen the Bourbon element among them—which as a Bourbon element is just as “crooked” in that party as among the Democrats—and hardens them into arrogant certainty of success, this victory will have to be regretted; if it teach them, as it should, that with a thoroughly good candidate they can beat the Democrats with one that is objectionable, it will have been a thing to rejoice over. Platforms are of very little account now-a-days—but a man's name and career may be a guarantee, and that is what the people want.

THE sad disclosure of Secretary Belknap's dishonesty, though more than a nine days' wonder, has been so much written and talked about that nothing remains perhaps to say. He has been held up to public scorn in various ways. His crime has been painted by innumerable artists, each one in a different style, according to the colors he was accustomed to use or the light in which he worked. To some it has been shocking because he was Secretary of War, to others because he was a gallant soldier; to this one because it cast reflection on the party, to that because it showed ingratitude to

General Grant. Many have lamented the discovery because it proved high places so corrupt: not a few because it was found out. This last reason has even been hinted at in public prints; and more than one person, reasonably intelligent and fairly honest, has seemed to think that the worst feature of the whole thing was not that the Secretary had been engaged in corrupt practices, but that he should have been caught in them. A deal of pity has been wasted on on him and his family—on him, so handsome and so popular; on members of his household, so beautiful, so exquisitely dressed, so white-necked, and with feet so small! Painful pictures of a ruined household have been drawn to point morals and enforce lessons of virtue. In most cases the stress has been laid on the shockingness of the discovery, and the grief that followed, rather than on the infamy of the crime itself. No one can feel anything but sorrow at the spectacle which the newspapers have been dissecting before our very eyes; but good men and patriotic citizens, it seems to us, should pray first that officials should not commit such crimes, but secondly, if they do, that they be speedily found out. If Mr. Belknap's honor could not have kept him virtuous in temptations, the fear of discovery one would think would have restrained him; and had he seen on all sides fraud and corruption instantly brought to light and as speedily punished with impartial rigor, he might perhaps have done differently from what he did. He saw, on the contrary, a laxity of morals in respect of the discharge of public duties, a growing system of corruption in the public service, and a determination among the leaders of a party, strong and apparently impregnable, to silence every cry, cover up every aperture, and whitewash every person accused of irregularity. He saw men in the highest places doing wrong, and men in lower following the example. Virtue was poor and Vice extremely wealthy—he needed money and he took it. Careful observers are not astonished that this exposure should have come at last, but they have been surprised that it came just where it did. Besides innumerable other things which Belknap's fall has illustrated, there is the fact, that it is not often the worst representative of a corrupt system who suffers most keenly for its crimes.

The Republican party is, of course, held responsible for Mr. Belknap. And yet, after all, no party was ever much less to blame for the misdeeds of one of its members. He was a Democrat, appointed to

the office of Collector of Internal Revenue by Andrew Johnson, and from that dizzy elevation lifted by General Grant into the Secretaryship of War. The party never would have chosen Mr. Belknap for any place. It had never made him a constable or justice of the peace. He was not one of its leaders, even of the tenth rank. Under any other administration he would have been left to tend his flocks and herds, or, perhaps, continue to collect the tax on "crooked whisky," and he might have died virtuous and been happily forgotten. The personal government of General Grant has given him to the party and the nation. He was fit to be in a Cabinet composed on the principle of a General's staff, but he was in no sense a representative of the party. It may be said that the party became responsible by acquiescence. But what could the party do? This indeed it might have done. It might have trusted awhile longer the men whose leadership had made it great and powerful. It might have been willing to listen to unprejudiced and friendly counsel, and believe that the President was human; it might have checked him a hundred times, declined to confirm his worst appointments, to drive Schurz and Trumbull from the ranks, to insult Charles Sumner and approve of Schenck. It might indeed have been frank about Louisiana, helped Chamberlain at Columbia, and refused point blank to let the administration drive the late rebels into the strange attitude of defenders of the Constitution. It might have said: "General Grant, our gratitude to you is great, as indeed it ought to be, but it has a limit. We owe you much, but we owe our country more." The President of the United States may not be amenable to party discipline—but a great party must respect itself to deserve the people's confidence and win their votes; and had the Republican party been true to itself in the last five years, and displayed in peace half the courage it often showed in war, it would not now have had to suffer the injury and bear the shame of things of which it was not the first cause, and for which it is not chiefly responsible.

THE relief which has been felt since the appointment of Judge Taft is very considerable. He is a graduate of Yale of 1833, and now one of the six Fellows elected by the Alumni; is a lawyer of ability and reputation, a Republican of convictions and influence, and will undoubtedly make a safe, sound and thoroughly honorable Cabinet Minister. If General Grant will take Judge Taft's advice as readily as we are given to suppose he did his predecessor's, the words "the President and all of us," will come to have a different meaning by the end of his administration.

CORRELATED GROWTH.¹

THERE have been discovered in nature two classes of correlated growth; the first establishing a correspondence between the different parts of an organism; the second, between an organism and its environment. The first, as Argyll observes, suggests the working of forces possessing inherent polarity of action,—the second, adjustment with a view to purpose. The exquisite patterns of flowers and of shells, the nice balancing of parts noticeable, in fact, in nearly all organisms are illustrations of the first class. Darwin's and Spencer's explanation of the phenomena is that correspondence of parts comes from a like correspondence in the external influences. As organisms are seldom out of harmony with their surroundings, it is difficult to cite facts controverting this position, however false it may be, yet some have come to light which are clearly of another origin. For instance, in cats, eyes with a blue iris are found associated with deafness, and a tortoise-shell-colored fur with the female sex. There are malformations and abnormal developments under what are styled symmetrical diseases, that reveal, at times very grotesquely, this intimate relationship. Darwin himself gives us instances of unusual growth that show correlation. He says: "In several distinct breeds of pigeons and fowls the legs and two outer toes are feathered, so that in the trumpeter pigeon they appear like little wings." These feathers are sometimes even longer than those of the wings and resemble them in structure. In such cases tendencies appear to complete the resemblance by some of the toes growing together.

A mechanical origin cannot well be claimed for the serial homology displayed in the development of the worm *Syllis*, dividing as it does spontaneously, a new head with all its complexity and unity forming midway in the body of the parent. The issuing of the legs, wings and eyes of Diptera, two winged flies, out of masses of formative tissue and the building up of a body and head by their

¹ In the present paper, taken from a monograph on "The Supernatural," the design is to give simply a brief and popular exposition of some of those interesting phenomena in animate nature, whose discovery and interpretation have been the study of Mivart, Wallace, Darwin, Thompson, Huxley, Lyell, Spencer, Argyll and other eminent writers.

approximation, is a process not possibly referable to outside influences; neither is the fact that the larva of the Hessian fly gives rise to a second within it which bursts the body of the first, the second to a third, the third to a fourth; neither is the fact of the vertical completeness of the bony pike, for it can make no use of it; nor, for a similar reason, that of the extra series of ossicles on the outer side of the paddle of the Ichthyosaurus; nor that of each hand of the eft having one more finger than his foot has toes.

If Spencer claims for his "physiological units" power to grow into as perfect animals as those from which they sprung, how can he consistently pronounce incredible the evolution of nature's homologues by some internal, individual force. Murphy in his work on "Habit and Intelligence" remarks that in crystals, form or structure does not depend on function, for they have none, and that analogous formative forces may reside in living organisms. This is especially evident among radiates and mollusks. The symmetry of their shells is no less wonderful in its perfection than that displayed in salt or snow crystals.

In the same species of sea worms, males and females differ so widely that naturalists for a long while mistook them for different genera and even families; yet Darwin admits that sexual selection is not sufficient to account for this wide variation, they being too low in the scale to choose partners or attempt rivalry. Natural selection surely cannot account for it, for they live amid similar surroundings and fight similar battles. There are species of insects in which the male is a fly, and the female a worm. To have made it possible for this species to be an off-shoot of some other, the changes, effected by selections, in one sex must have been intimately and most mysteriously correlated with those in the other. The simultaneousness and correlation of these changes are wholly unaccounted for in Darwin's philosophy. On this point Argyll cites the plumage of humming birds. Not only do marked differences exist between the four hundred species, but between the sexes of each species, and unless the variations occurred at the same time and were homologous between the sexes, the divergence would exhibit for a time the phenomena of mixture or terminate in reversion. Yet Gould, a most acute observer, declares that among the thousands of specimens he has examined he has never yet found a single case of mixture or hybridism.

There are phenomena of the second class of correlated growth, those in which a close connection is discoverable between the organism and its environment, which must especially perplex these philosophers to explain. Among these are the many remarkable instances of mimicry found in nature, under whose shelter some animals take refuge from deadly enemies, others insidiously steal upon their prey.

Mr. Wallace remarks of the leaf-butterfly which he found in Borneo, "We come to a still more extraordinary part of the imitation, for we find among butterflies representations of leaves in every stage of decay, variously blotched and mildewed and pierced with holes, and in many cases irregularly covered with powdery black dots gathered into patches and spots so closely resembling the various kinds of minute fungi that grow on dead leaves, that it is impossible to avoid thinking at first sight that the butterflies have been attacked by real fungi." The imitation is said to extend through all the metamorphoses of the insect. The eggs resemble seeds, and the larvæ bits of stalk or chips or fragments of leaves. Argyll tells us that many species of the genus *Mantis* are wholly modelled in the forms of vegetable growths. "The eggs are made to imitate leaf-stalks, the body is elongated and notched, so as to simulate a twig, the segment of the shoulders is spread out and flattened in the likeness of a seed vessel, and the large wings are exact imitations of a mature leaf with all its veins and skeleton complete, and all its color and apparent texture. It is a predaceous insect, armed with most terrible weapons hid under the peaceful forms of the vegetable world. It is its habit to sit on leaves, which it so closely resembles, apparently motionless, but really advancing on its prey with a slow and insensible approach."

There are some conspicuously colored varieties of butterfly which are exceedingly unpalatable and have about them an offensive odor. The more noticeable they are, the less liable to be mistaken for those that are sweet and savory, and the more likely to be shunned by the hungry bird. There are other varieties, which, by their imitation of the gaudy coloring of these and their style of flight, pass themselves off for quite the opposite of what they are. In the English Orange Tip, the under surfaces of the wings resemble the bloom of the wild parsley on which it rests at night. Darwin² notices the mim-

² *Descent of Man*, Vol. I., p. 380.

icry by butterflies of both withered and green leaves in form, color, veining and foot-stalk, but passes it by with the simple remark that the coloring has been modified for purposes of protection. According to his theory the imitation came through inheritance by slow degrees. The first was a chance change and the imitation faint, but its possessor escaping his enemies by means of it, while his less fortunate comrades were devoured, transmitted the peculiarity to his offspring; and of these, they to whom had been given the strongest protective likeness, survived, and thus along down the line the imitation grew until the present marvelous perfection was attained. But how happens it, we may ask, that many other kinds, such as our Admiral and Peacock varieties, our white cabbage butterflies, or the great swallow-tailed *Papilio*, all blazing with conspicuous colors, have not been favored with similar imitations?

There is a species of moth, of which both sexes are white, and these are so distasteful that the feeders to whom most moths are a choice morsel, will not touch them. There is another, the *Cynia*, whose females alone imitate their appearance for purposes of protection. As sexual selection is supposed by Darwin to be inoperative among moths, it must be the males are denied this protective garb by some power not accounted for in his philosophy. He remarks:³ "If we assume that the females before they became brightly colored in imitation of some protective kind were exposed during each season for a longer period to danger than the males, or if we assume that they could not escape so swiftly from their enemies, we can understand how they alone might originally have acquired through natural selection and sexually limited inheritance their present protective colors."

But what is to hinder the males from thus varying in favor of protection through natural selection, and also through that of sexual, should it chance to be operative, for it too would incline toward the bright appearance. Grant the males are swifter winged, yet they are nevertheless in great danger and need shelter, and, moreover, the gayer their garb the greater their chances for success in seasons of courtship.

There are lizards living upon the bare plains of the La Plata who are of such mottled tints that, when, at the approach of danger,

³ *Descent of Man*, p. 400, Vol. I.

they suddenly shut their eyes and flatten their bodies, it is well nigh impossible to tell where they lie. The flounder on its upper surface is speckled like the sand bars of the sea, on which it spends its days. A pipe fish, with its reddish streaming filaments, is hardly distinguishable from the sea weed to which it clings with its prehensile tail.

One of Darwin's main arguments in favor of the theory that out of brute life came the human under the laws of natural and sexual selection, is the fact that between the two there exist so many striking resemblances. Applying this to the species which possess this protective mimicry, we must not only hold that the palatable and the nauseous butterflies have a common ancestry, but that the same is true of butterflies and leaves, of flounders and sand beds, of pipe fish and the red-streaming weeds of the sea. This argument of his loses much of its weight when it is shown to be not susceptible of universal application, for if he takes the liberty to explain any of nature's resemblances in any other way he must accord to us the same liberty, he must grant it possible that those resemblances which exist between brutes and men may be susceptible of a widely different interpretation, that the many points of likeness may be accounted for simply by the fact that they are the product of a single designing mind.

Darwin confesses ignorance of how the imitation began, or how it, step by step, grew stronger. He in reality attempts to explain only its subsequent adoption, and even to accomplish this he is forced to summon to his aid the law of inheritance, which proves to be a greater mystery, if possible, than the one he is attempting to fathom, for in different places through his *Descent of Man* he speaks of the sexual ornaments of males being transmitted equally to both sexes, of their being transmitted only to the males, of the protective color and occasionally of the superior strength of females being in some instances confined to them, in others allowed to both, showing that here is a force the methods of whose working have thus far proved past finding out. Seemingly conscious of the unsatisfactory character of this mode of interpretation, he essays by his theory of Pangenesis to throw light upon the phenomena of inheritance; but this very hypothesis is fatally at fault, and, even were it true, he has succeeded only in following the mystery until it vanishes at last within the diminutive walls of the gemmule.

Note some of the other varieties of phenomena comprehended in this second class of correlated growth. Take the poison of snakes. Argyll in his "Reign of Law,"⁴ states regarding it that "it is a secretion of definite, chemical properties, which have reference not only, not even mainly, to the organism of the animal in which it is developed, but especially to the organism of another animal which it is intended to destroy. * * * How will the law of growth adjust the poison in one animal with such subtle knowledge of the organism of another that the deadly virus shall in a few minutes curdle the blood, benumb the nerves and rush in upon the citadel of life."

The electric battery of the ray or torpedo is a case equally in point. In the second volume of Owen's "Lectures on Comparative Anatomy," it is described as composed of nine hundred and forty hexagonal columns resembling honey-comb, each of which is sub-divided by one of a series of horizontal plates seemingly analogous to the plates of the voltaic pile. The whole is supplied with an enormous amount of nervous matter, four great branches of which are as large as the animal's spinal cord, and these spread out in a multitude of thread-like filaments around the prismatic columns and finally pass into all the cells. Here is presented a three-fold correlation, embracing the organism of the fish, the organism of the enemy, and the nature of the conducting medium. In the fertilization of the Orchids this class of correlation is especially noticeable. Its history is as full of marvels as an Arabian tale. We find here contrivances of unrivaled ingenuity, and by their complications and many nice adjustments, displaying, one would think, beyond all possible cavil, an intelligent purpose. Two or three illustrations will answer the demands of our argument. Darwin⁵ relates of the *Coryanthes* that it has its lower lip enlarged into a bucket, above which stand two water-secreting horns. These latter replenish the bucket from which when half-filled the water overflows by a spout on one side. Bees visiting the flower fall into the bucket, and crawl out at the spout. By the peculiar arrangement of the parts of the flower, the first bee that falls in carries away the pollen mass glued to his back, and then when he has his next involuntary

⁴Page 36.

⁵Origin of Species, p. 236, 5th Ed.

bath in another flower, as he crawls out the pollen mass attached to him comes in contact with the stigma of that second flower and fertilizes it. In another variety he tells us that when the bee gnaws a certain part of the flower he inevitably touches a long, delicate projection which he calls the antenna. This transmits a vibration to a certain membrane which is instantly ruptured, setting free a spring by which the pollen mass is shot forth like an arrow in the right direction, and adheres by its viscid extremity to the back of the bee. With this strange cargo under sealed orders he wings his way to another flower, and thus, while busy gathering nectar for his comb, he is made an unconscious instrument in fulfilling conditions under which a new vegetable life comes forth instructed in that same wonder-working alchemy that changes into a new orchid nectar-cup the soil, shower and sunlight which nature has furnished for its fashioning.

Darwin in his volume on this subject uses this remarkable language: "The Labellum is developed into a long nectary in order to attract Lepidoptera, and we shall presently give reasons for suspecting that the nectar is purposely so lodged that it can be sucked only slowly in order to give time for the curious chemical quality of the viscid matter setting hard and dry." Of one particular structure he says: "The contrivance of the guiding ridges may be compared to the little instrument sometimes used for guiding a thread into the eye of a needle." In speaking of the clue which led him to the discovery of the right working of the mechanism in one instance he says: "The strange position of the Labellum perched on the summit of the column ought to have shown me that here was the place for experiment. I ought to have scorned the notion that the Labellum was thus placed for no good purpose. I neglected this plain guide and for a long time completely failed to understand the flower." The valuable work from which these sentences have been taken was written by Darwin, not as a theorist, but as an acute and pains-taking observer. We ask for no better witness than Darwin himself against his and Spencer's explanation of the phenomena of correlated growth. Evidences of an intelligent purpose, of the workings of self-conscious mind, are too overwhelming to be ignored.

In the interior of the ear there is an immense series of minute, rod-like bodies termed *fibres of Corti*, having the appearance of a key-board. Each fibre is connected with a filament of the auditory

nerve. These shreds of the nerve are strings, and the fibres the keys that strike them. This is supposed to be a keyboard in function as well as appearance, and through it not only melody but even harmony of sounds finds an avenue to the brain. Here, as Mivart suggests, is an anticipatory contrivance, for our progenitors had no wants in their simple modes of life which could possibly call into play an instrument of such unlimited resources of symphony, an instrument that has proved itself capable of interpreting to privileged multitudes the pathos and the rapture of a Beethoven and a Mendelssohn.

In the human eye there have been discovered by anatomists upwards of eight hundred distinct contrivances. Seven matched socket bones, a self-adjusting curtain with its delicate fringe of hair, a projecting eyebrow, six outer muscles of the ball, one of them geared through a pulley, oil and tear glands with an accompanying waste pipe, a hard, transparent elastic cornea set in the white sclerotica, an expanding and contracting pupil, an aqueous, a crystalline and a vitreous humor, an inward net-work of nerve,—such are some of the more noticeable points of an instrument, which, in the ingenuity of its adjustments, eclipses any invention of any human genius of any era. Note but one of its contrivances. By this, its possessor can both thread a needle and sight a star. The sclerotic and choroid coats are filled with minute muscles, which can flatten and press back toward the retina the crystalline humor, and by the same movement, change also the form and refracting power of the vitreous humor in which the lens lies. A reverse process can be effected with equal ease. Thus the ends that are clumsily, painfully, imperfectly attained by the apparatus of the astronomer and the microscopist are here secured without spherical aberration, instantaneously and by simple volition.

It would seem impossible to account for the development of such a complicated instrument by means of a natural selection from among minute, indefinite, fortuitous variations, that selection being guided simply by the urgent demands of a struggle for life; for the instrument in order to be of any advantage in this struggle must have a concurrence of parts, predicating a multitude of initial concurrent departures from the parental type. Only on this concurrence comes the gift of sight, and the very fact that such an end has been attained by such complicated means at the very outset,

before any selection can possibly take place, furnishes, it would seem, a complete answer to the Darwinian theory. Even the simplest eyes, those that are fixed and angular and of least focal power, furnish us this argument in its full force; for not one of them is so simple but that even it is the resultant of simultaneous and corresponding growths of different parts, each of an independent origin and development, and each utterly useless until conjoined with the others in a symmetrical whole. Also, at each advance step in compass and complexity, the same difficulties confront Darwin, for each is made up of an entirely separate set of concurrent changes.

There is still another group of phenomena belonging to this second class of correlated growth. Darwin remarks:⁶ "To free the hands and upper parts of the body man's feet had to be flattened and the great toe peculiarly modified, though this has entailed the loss of the power of prehension." * * * "I have no reason to doubt that a more perfectly constructed hand would have been an advantage to the monkeys, provided, and it is well to note this proviso, their hand had not thus been rendered less adapted for climbing trees. We may suspect that a perfect hand would have been disadvantageous for climbing, as the most arboreal monkeys in the world either have their thumbs much reduced in size and even rudimentary, or their fingers partially coherent, so that their hands are converted into mere grasping hooks." * * * "Such rough treatment as the hands would receive in climbing trees would have blunted the sense of touch, on which their delicate use largely depends."

The human frame has also diverged from the structure of brutes in the direction of greater physical helplessness, in being left naked, without great teeth or claws, comparatively weak, possessed of little speed and of slight powers of smell with which to find food or safety.

At the time these changes occurred in the body, corresponding changes must also have reached the brain, for the one change without the other, as Darwin here confesses, would have been a serious hindrance in the struggle for life, and, if his theory be true, could not have long survived. As in the formation of the eye and ear, modifications occurring at different starting points, and each develop-

⁶ *Descent of Man*, Vol. 1, pp. 135 and 136.

ing along an independent line, must have united in a concert of action before they could be of any advantage ; so, independent, synchronous and corresponding changes must have occurred in both the body and brain of the brute to have produced the man, even waiving the question of his being distinctively endowed with a moral, accountable nature. Selection from minute, indefinite variations, such as Darwin supposes, could have here played no part. Would creation be a misnomer for such a circle of change? Brutes, though thus men's progenitors, could have sustained to them no closer relation than the soil to the flowers, which from it open their tinted and perfumed petals.

Darwin argues that, as it is uncertain whether man descended from the small chimpanzee or the great gorilla, it cannot be said that man has physically degenerated, and surmises that had man been large, strong and ferocious like the latter, he would probably, though not necessarily, have failed to become social, and thus been checked in his development, and that hence it might have been of an immense advantage to him to have sprung from some comparatively weak creature ; remarking that his slight strength and speed are more than counterbalanced, first, by his intellectual superiority, through which even while still barbarous, he has formed for himself weapons and tools ; and, second, by his social qualities, leading him to give and receive aid. He thinks that primeval, ape-like men could have successfully battled for life if naked Fuegians have been able to survive despite a wretched climate, if puny Bushmen have kept at bay the wild beasts of South Africa, and if the dwarfed Esquimaux yet withstand the darkness and the frost at the Pole.

This position, however, presupposes the brain of the brute to be capable of self improvement, and to differ from the human not in kind, but simply in degree, a position which is not only left unproved, but which many eminent writers have forcibly argued to be incapable of proof.

Darwin holds with Lubbock that savages will lift themselves without the aid of outside influences to higher states of civilization, by naturally selecting and transmitting beneficial individual peculiarities. There are no facts confirming this. He grants¹ that it is very difficult to form any judgment why one particular tribe, and not

¹ *Descent of Man*, Vol. 1, p. 160.

another, has been successful and risen in civilization. Many savages are in the same condition as when first discovered several centuries ago. As Mr. Bagehot has remarked, we are apt to look at progress as the normal rule in human society, but history refutes this. The ancients did not even entertain the idea, nor do the Orientals now. According to another high authority, Mr. Maine, with the greatest part of mankind there never has appeared a particle of desire for the improvement of civil institutions. After quoting all this approvingly, Darwin remarks: "The problem of the first advance of savages toward civilization is at present much too difficult to be solved." This is paying a poor compliment to his theory of the survival of the fittest. The fact is, men are a lapsed race and have no power of self-rescue. Why did the cultured Greeks waste away rather than spread over all Europe? Where is now the once dominant Spanish nation? How was it the Roman Empire finally succumbed to the wild barbarian hordes that came down like a cloud of locusts upon its proud capital? Whence the Dark Ages of history? These and other similar queries Darwin raises and acknowledges them difficult of answer. Has he not called up Banquo's ghost that will not down? To me some of his pages are sources of constant surprise. Seemingly unconscious of the force of his many admissions, he furnishes the very weapons which can be used fatally against him. Shall we attribute this singular conduct to candor, or shall we regard him as bewildered at times by some of the sturdy and well-aimed blows of his antagonists?

In examining the phenomena of homologous growth, the question naturally suggests itself, Is utility always the end aimed at, or is the securing of mere beauty or mere variety in any single instance a controlling purpose? If the latter is true, then the hypothesis of the survival of the fittest is fatally at fault, as its author has felt himself forced to confess.

Darwin proved, strange as it may seem, the very first one to enter the lists against his own theory, openly acknowledging that in the colors and forms of flowers the forces of correlated growth "do modify important structures independent of utility, and, therefore, of a natural selection." But we need not enter the vegetable kingdom to find overwhelming testimony against the soundness of his philosophy.

There is a class of microscopic animals, the Diatomaceae, who

have existed in such vast numbers that whole mountains have been found composed of their remains. The forms of their infinitesimal shells when magnified are discovered to be of most exquisite beauty and of every conceivable pattern. "In the same drop of moisture," writes Argyll, "there may be some dozen or twenty forms, each with its own distinctive pattern, all as constant as they are distinctive, yet having all apparently the same habits, and without any perceptible difference of function." Neither sexual nor natural selection has any governing influence here. Mere ornament and variety is the evident aim.

Dr. Carpenter, in his Introduction to the Study of the Foraminifera,⁸ says: "The physiologist has a case in which those vital operations which he is elsewhere accustomed to see carried on by an elaborate apparatus are performed without any special instruments whatever; a little particle of apparently homogeneous jelly changing itself into a greater variety of forms than the fabled Proteus, laying hold of its food without members, swallowing it without a mouth, digesting it without a stomach, appropriating its nutritious material without absorbent vessels or a circulating system, moving from place to place without muscles, feeling, if it has any power to feel, without nerves, propagating itself without genital organs, and not only this, but in many instances forming shelly coverings of a symmetry and complexity not surpassed by those of any testaceous animals." Darwin remarks⁹: "The most probable view in regard to the splendid tints of many of the lowest animals seems to be that their colors are the direct result either of the chemical nature or the minute structure of their tissues, independently of any benefit thus derived." He attributes the beauty of the maiden's cheek to the color of the arterial blood;—the extreme beauty of some of the naked sea-slugs to the biliary glands seen through the translucent integuments. But are not the tints of autumn, of sunset and of flower petal, susceptible of like explanation? There is no sexual selection, and consequently no secondary sexual characteristics among mollusks, yet they are beautifully colored and shaped. Darwin admits these colors to have no use as a protection, and accounts for them by the nature of the tissues, while the sculpture of the

⁸ Preface, page vii.

⁹ Descent of Man, Vol. I., p. 314.

shells he attributes to their manner of growth. Suppose he were asked to explain the origin of London Bridge. Would he answer, think you, that it is the result of certain mechanical and chemical forces working under fixed laws; yet nothing is more settled in science than that these very forces performed the entire work. All the will of man has done is to *direct* them in their working.

Note the tropical butterflies. Mr. Bates, quoted by Darwin as of high authority, has proved that their gorgeous colors are not due to the greater heat and moisture to which they are exposed; that though both sexes in many cases are subject to the same conditions and live on the same food, they so widely differ, the male being gaily dressed, while the female goes about in plain Quaker costume, that naturalists for a long while ranked them as of different genera; and that both sexes in other cases are alike in external appearance, both presenting very broad and brilliantly tinted wings. Darwin affirms his belief that the same causes have probably affected the color in all the cases, as the same type is preserved. As neither sexual selection, nor environment, nor habits of life, nor purposes of protection are concerned evidently in many, to what cause can this display of marvelous beauty be attributed? What hinders a belief that the same Divine Artist who painted the sunset, the rainbow, the flowers and the autumnal glory, garnished also these winged blossoms of the wood?

“The ocelli on the feathers of the Argus pheasant are,” remarks Darwin,¹⁰ “so beautifully shaded that they stand out like a ball lying loosely within a socket. * * * These feathers have been shown to several artists, and all have expressed their admiration at the perfect shading. It may well be asked, could such artistically shaped ornaments have been formed by means of sexual selection?” This question the author answers in the affirmative. But how happens it that choices made by birds in seasons of courtship, out of infinite variations of adornment, result in a work of such high art? Have these choices, granting them to have been made, been guided by a capricious taste, or are they but one, and that too a subordinate one, of many agencies organized and controlled by a self-conscious will for the embodiment in color and form of some definitely preconceived ideal? Darwin attempts to show that minute steps have been taken

¹⁰ Descent of Man, Vol. 2, p. 87 and 88.

in forming the ocellus,—that there has been a gradual approach toward the resemblance to the ball and socket. But in the case of the mouth of the whale, and the throat of the kangaroo, as Mivart has shown, the entire departure from the ordinary construction must have been effected at once. Why may not the ocellus have as suddenly appeared in all its completeness? But even if his explanation of its origin be true as far as it goes, it still leaves the mystery unsolved how the coloring is, as he states it, “redistributed either centrifugally or centripetally.” That in shape and shading high art should be approached, and approached with such constancy, and that the birds should have been possessed of such refined esthetic tastes as to make the right choices, and furthermore, that variations should have occurred at all from which choices could be made, are accompanying phenomena demanding explanation at the hands of Darwin, before the meed of praise can be awarded him for having unraveled the mystery of the real origin of the ocellus.

In his *Descent of Man*¹¹ he makes one of those strange, seemingly suicidal, confessions to which I have alluded. He says: “No one, I presume, will attribute the shading, which has excited the admiration of many experienced artists, to chance, to a fortuitous concurrence of atoms of coloring matter. That these ornaments should have been formed through the selection of many successive variations, not one of which was originally intended to produce the ball-and-socket effect, seems as incredible as that one of Raphael’s Madonnas should have been formed by the selection of chance daubs of paint made by a long succession of young artists, not one of whom intended at first to draw the human figure.” Here he witnesses to some intelligent working to a definite end. Here he appears to grant that a certain species of bird comes upon the stage charged with a distinct mission, the work of producing on a feather canvass a picture whose shading shall be of such faultless finish that the foremost painters of the age shall bear testimony that it is indeed the work of a master.

I fail to see why it would not be reasonable to claim that at the very instant the tide of taste turned in the mind of the Argus pheasant, the very instant the new pattern was set, the new impetus given, a new creation occurred. Suppose that, at some time, the directing,

¹¹ Vol. 2, p. 135.

germinal power of an acorn becomes so affected that instead of growing up into a genuine, old-fashioned oak, one or two of the characteristics of an elm make their appearance, and that in the next generation one or two more are added, and thus little by little the change goes on, until all the characteristics of the one have been supplanted by those of the other. Although centuries are consumed in perfectly embodying the new ideal, yet are we not warranted in saying that the moment the new germinal impulse is given, that moment a new creative fiat goes forth? The laws of sexual and natural selection, of inheritance, of homologous growth, as well as all the other laws of life whose nature is yet unknown, are, as we have remarked, but *methods* of working. The birds and brutes are unconscious instruments; they are blind to the final consummation. The directive force that finally produces the ball and socket ocellus is no less mysterious than that force which is wrapped up within the walls of an acorn or the faces of a crystal. The fact that the botanist can point out each step in the process of development whereby the oak is fashioned out of dew, air, soil and sunlight, that he can talk learnedly of the osmotic force, does not prove that he has solved the riddle of growth, nor does his showing that centuries are necessary to bring the tree to perfection lift the hiding curtain a single inch.

W. W. KINSLEY.

A FORTNIGHT IN SICILY.

WHAT is the reason that of the thousands of English-speaking travelers who go to Naples every year, not one out of fifty thinks of crossing the narrow straits that separate the Italian continent from Sicily? I think it must be ignorance. Thus I heard a young man say the other day that it was about as far from Naples to Messina as from New York to Bermuda. "Why," said I, "you can go in no more time than it takes to go from New York to Boston." And from Reggio, which is nearly the southernmost point of Calabria, to Messina, is a distance of only two miles.

Then another reason is that nobody knows anything about Sicily. It is supposed to be a country of earthquakes and brigands, and a continually changing government. And so it is; all these evils

flourish in Sicily, though not to such an extent as to make it unsafe or disagreeable to travel there. But while our recollections of Rome and Athens are fresh enough, everybody seems to forget the familiar classic names of *Pelorus* and *Lilyboeum* and the *Fretum Siculum*. Syracuse and Agrigentum and Naxos are almost as common names in ancient history as the great cities of the mother country; and yet the tourist who has trodden a dozen times the hackneyed Campo Vaccino and Appian Way, never thinks of the Sicilian treasures which a journey of two days might bring him.

Just remember how Sicily has been the prey of almost every nation in Europe. The "Thrinacria" of Homer has excited the cupidity of the Greeks, Romans, Vandals, Saracens, Normans, Germans, French and Spaniards in succession. And all have left the traces of their occupation. The Greeks built the splendid amphitheatres of Syracuse, the Saracens left behind them the strange romantic castle of La Zisa in Palermo, and the Normans that monument of patient industry, the cathedral of Monreale. Syracuse and Girgenti are full of the remains of ancient greatness. Palermo contains many relics of medieval art to delight the souls of the admirers of Gothic, and Taormina presents, in some respects, the finest panorama in Europe.

For Sicily is not only covered with the remains of the nations who have successively inhabited it: it is one of the fairest and most beautiful spots on earth. If in some terrific revolution or stupendous effort of the government to put down brigandage, the temples of Girgenti and the cathedral of Monreale should be blown up, Sicily will still remain "another Eden, demi-Paradise." The beauty of that rocky shore encircling the base of Mt. Etna, the great snowy mass of that volcano rising up suddenly from luxuriant plains of oranges, aloes and cactus, and the soft, dreamy loveliness of the low line of hills that makes a background for the ruins of Syracuse, will never disappear or be destroyed until those great geological changes which not we nor our remotest posterity shall live to see.

Just think of aloes three times the height of a tall man, cactus so thick as to form hedges in the country and convenient places for drying clothes in the sun, and orange orchards a mile long. All these flourish in rank abundance outside the walls of Palermo; so that, alluding to the famous saying *veder Napoli e poi morire*, some one said *veder Palermo e poi vivere: i. e.*, if a man wanted to die

after he had seen the beauty of Naples, he would want to live after he had seen the beauty of Palermo. Oranges and lemons are ripe in this delicious climate at a season when we are drenched with cold rains, or wrapped in ice and snow. A soldier who had served in Sicily told me that during the summer months fruit was in such profusion that it was worth literally nothing but the cost of transportation, and the soldiers could take what they pleased from the trees without being called to account. All over that rocky volcanic island, where the soil is rough and jagged as if the lava-currents had frozen suddenly when they rushed boiling and seething down from Etna, wherever a handful of dust has been collected, there numbers of green plants find nourishment enough in a few inches of "barren earth." In April and May the ground is carpeted with flowers of a thousand different colors, and the cloisters of Monreale steam with the natural incense of orange-blossoms.

Such is the beautiful island which crowds of educated and really appreciative travelers neglect every year, which I scarcely thought of visiting during a five months' stay in Italy in 1867, and saw for the first time last year on my way from Athens to Naples and Rome. We had glorious weather from the Piraeus along the shores of Greece and thence across to Messina. The sea was of the deep blue that almost melts into the sky, and the mountains acquired that unearthly purple tone at sunset, which can only be seen in Italy and the more favored regions of the South. The boat reached Messina late one afternoon after a two-days' voyage from the Piraeus, and we did not go ashore until the next morning. What a dreadful undertaking it is, this going ashore—the *sbarco*, as they call it. As Brindisi contains the only wharf in Italy, in other towns you are taken ashore in small boats. The scene comes nearer my idea of Pandemonium than anything I ever beheld on sinful earth. Around the dark mass of the Austrian Lloyd or *Messageries* steamer there floats, or rather jumps, a variety of small boats and boatmen, contending for the honor of taking the traveler to the *dogana* or custom-house; for in Italy every town of any importance has its custom-house, from which generally however a *mezzo-franco* will protect you. The little boats jump up and down, and the boatmen wrangle among themselves in a jargon which is incomprehensible, even to the Italians. They are a study of human nature and race, these boatmen, with their savage untamed ways. I was ferried ashore by a wild-looking lad, with his

trousers rolled up and his shirt rolled down to such an extent that it produced very much the effect of having no clothes on at all. His hair, thick and matted, stood out straight in the wind, and evidently he spent half his time in the water, for he looked as much like a fish as like a man. On reaching the shore, although there was a tariff, and the Greek gentleman I was with had made a bargain, we had a fight about the price, for who ever did anything in Italy without a fight? There is an English saying to the effect that all is fair in love and war, and in Italy they have a saying, or at all events act up to it, that all is fair with English and Americans. No sooner do they see a *forestiere*, which word, though in the dictionary it means *foreigner*, in practice means *English* or *American*, than they think they have chance for unlimited extortion. The only thing to do is to disregard their oaths and entreaties, throw the money down on the ground and walk away. This is sure to bring them to their senses.

Messina is built on the edge of a hill, and is shut in on all sides, except towards the sea, by the mountains of Sicily and Calabria. The part along the harbor is built in the shape of a crescent, like the lower part of Regent street in London. Here is the principal hotel, and here is to be found that population, living partly on land and partly in the water, that one always sees in Italian towns. They are wild-looking animals that keep up a screeching and quarrelling all day long in a language composed of bits of all languages, which they have probably picked up from sailors. Swarms of these scantily-clad creatures, with Phrygian caps, lie in the dirt eating oranges all day long. They bring to mind the witches in Macbeth,

So wild in their attire ;
That look not like the inhabitants o' the earth,
And yet are on't,

or what a friend of mine said about an exceptionally wild Irish cook that he had picked up, that "if you met her in the woods you would shoot her." There is very little to be *seen* in Messina, in the technical sense of that word. When I was a child I was quite familiar with the cathedral from a picture of it in Knight's Shakespeare, but found the reality disappointing. It has suffered so much from earthquakes and other causes that but little of the original plan remains. There is a wonderful high altar in Florentine mosaic, in which birds and flowers and different emblems are marvellously inlaid upon a

groundwork of lapis-lazuli. One of the acolytes of the cathedral showed me the beauties of the place. He was an interesting boy, fifteen years old, with that dreamy and rather mournful type of face which is seen in the picture of St. Stanislaus Kopta by Spagnoletto. Even at his tender age he had begun to study for the priesthood; and though content to die to the world, the world evidently had allurements for him still. I found that he had certain hours for studying Latin, history, etc., then I said: "I suppose you have certain hours for play." A shade crossed the poor boy's face as he answered in that beautiful language which is as sweet as music: "*Ah! per noi no; il guico non: i. e. (for us there's no such thing as play).*" Good God! Under this sapphire sky, upon these enchanting shores which have made Sicily a favorite residence for kings and queens from the frozen North, where the husbandman scarcely feels the weight of toil, where the young goats frisk upon the mountains, and the insects buzz about in the sunshine full of delight, as the orange-trees filled with the joy of existence are lavishly dropping their golden fruit into the sea, all the joy and innocent mirth of life was to be shut out from this child of man, who was born of a woman, had but a short time to live and that full of misery. And see how the plan followed by the Roman priests succeeds. Their policy of laying on men a burden heavier than they can bear, so far from manufacturing saints, has filled Italy with a class of priests for whom the people have a deep-rooted contempt. They are a repulsive, dirty lot, and if report be true, many, nay the majority, are "earthly, sensual, devilish." One might truly say, parodying the familiar lines of the old hymn, that in this delicious isle "every prospect pleases, and only *priests* are vile."

Another night conveyed me to Palermo, the largest and most important of Sicilian cities, which was as great in mediæval as Syracuse in ancient times. Palermo is, amongst other things, famous for brigands. Unfortunately the Sicilians are touchy about brigands, just as people who live on the Delaware river are touchy about chills and fever; they are always bad a few miles up the river, but it is perfectly safe here. So it is with the brigands, and I found it almost impossible to discover the true state of the case. Some of the people said it was dangerous to walk in the streets after dark; others said, "You can roam over the country at pleasure." One man said that in taking a carriage it was better not to engage the

driver long beforehand, lest he should give notice to the foe to be on the watch.

This latter difficulty I disposed of by taking no carriage at all, but walking five miles beyond the walls to Monreale. I saw no brigands, and indeed it seemed impossible that there should be any, for the high-road was an almost uninterrupted street; there were crowds of people both on horseback and on foot, and there were soldiers stationed at intervals. The brigands must have been in league with the whole population, including the army, in order to do any mischief. I passed, what always interests me, great flocks of goats driven by goatherds in that intensely picturesque dress made entirely of goat-skin with the hair turned outwards.

The walk from Palermo to Monreale is unsurpassed by anything in Italy. There is a luxuriant wilderness of semi-tropical plants stretching far away to the sea, and everything was green as mid-summer, though it was a few days after Christmas. After a time the road leaves the plain and encircles the rather steep ascent to the top of the hill where Monreale stands. The shining white road winds round and round the mountain through scenes of enchanting beauty, where the busts of great men repose in quiet dignity on the turning-points of the road, dolphins and nymphs pour water into marble basins that glitter in the sun, and satyrs with hideous faces leer out of the foliage. The view from the top, from the windows of the monastery, defies description. You look over a great plain golden with oranges, and gorgeous with flowers of a thousand different hues, and all this splendor toned down by the melancholy shade of the olive-trees; it is bounded on three sides by hills, the nearest being clad in warm luscious green, and the distant hills bathed in the ethereal blue which distance and especially Italian distance gives; and there is an opening like a golden gate, beyond which lies the "calm immensity" of the sea, and the city of Palermo reposing lazily upon the waters. Our own poet, Longfellow, must have had some such scene in his mind's eye when he wrote those lines, so familiar to all lovers of Italy:

Land of the Madonna,
How beautiful it is! It seems a garden
Of Paradise. * * * *
* * Long years ago
I wandered as a youth among its bowers,

And never from my heart has faded quite
Its memory, that like a summer sunset,
Encircles with a ring of purple light
All the horizon of my youth.

The church at Monreale is decidedly the greatest monument the Normans have left of their long occupation of Sicily. Dissertations on architecture are apt to be dull, so I confine myself to the mosaics, which are the glory of the place. Somebody who took the trouble to calculate the amount of space which they occupy, found it to be the incredibly large area of 80,000 square feet. The lower portions of the walls are covered with pure white marble, divided into compartments by bands of mosaic glittering with those gold-colored pebbles, which look so much like gold that during some Spanish occupation of Sicily, the soldiers composing the garrison stole them, mistaking them for the precious metal. Above this panelling the mosaics begin, and spread themselves all over the walls and roof, a firmament of bright gold, and overlaid with the glowing forms of saints and angels, the seraphim in burning row, the cherubim who are near the Most High, patriarchs and prophets who prepared the way of Christ, virgins arrayed in spotless white and bearing lilies, the types of their own innocence and purity, martyrs crimsoned in their life-blood, the twelve Apostles, and all the host of heaven. It is a sight to be remembered as long as one lives, and would be a consolation in the hour of death.

There is another church in Palermo, the Capella Palatina, in the same style of architecture, and if possible more imposing than Monreale, though not a fifth the size. That is a great difficulty at Monreale; the church is so vast that the mosaics, vast as they are, seem lost, and one has to look for them. They are far up on the roof, and you require an opera glass to see them. But the Capella Palatina is of such a size that its splendor is close by and all around. Its walls too are covered with gold blending beautifully with the rich tints of the robes of the figures taken from the Old and New Testaments. After the service in the chapel is over, the fumes of incense lingering around the altar give the effect of clouds hiding and toning down some of this gorgeous magnificence.

From Palermo I went all around Sicily in a retrograde motion to Syracuse. The steamer was a detestable little boat of the Florio Company, which was mercilessly tossed about by the

waves. What was my horror to see all the passengers, as well as the Captain, mate, and servants, looking at me as if I had been a wild beast, and wondering at my courage, audacity, etc. Never before having been praised for those virtues, I demanded an explanation, and was told that the Southern coast of Sicily was extremely dangerous, owing to the absence of harbors; that very few travelers ever attempted it, and the last boat had been kept a fortnight in Trapani! So I had before me the horror of being detained for two weeks in a little Sicilian town, with nothing to do and no resources but two or three Tauchnitz volumes in my trunk, which was unfortunately in the hold, and a Russian grammar. *That* fortunately would have occupied a great deal of time. The boat, if it left the harbor of Trapani at all, was to do so at midnight, so I went to bed trembling. But imagine my delight at waking up early the next morning and finding that we were in motion. The dangers of the Southern coast were as nothing compared to the fortnight in Trapani. The Southern coast is picturesque and beautiful, with a great many small towns, all of which had at least one very big church with a very big dome. *Sunny* is a word that would describe much of the scenery in Italy; for in that beautiful country the sun is truly the source of life and light, spreading an atmosphere of cheerfulness and content over the otherwise most miserable districts. The last morning Etna was in full sight, and Etna is, in some respects, the most imposing mountain in Europe. The Mont Blanc and Monte Rosa are but links of a great chain, and unless you were told you would scarcely know that they were higher than others of the same chain. But Etna is a vast continent of ice and snow, rising abruptly from the most fertile plains in Europe. Its base is washed by the deep blue waters of the Mediterranean, and the gorgeous coloring of its lower slopes fades away imperceptibly into the eternal snows that crown the summit.

So soon as I landed in Syracuse, after passing that irresistible nuisance the *dogana*, my luggage and I were conveyed to the "Tocanda del Sole," (Sun Hotel,) which so lately as the publication of the last edition of Murray was the best of Syracusan inns. The best that can be said for it now is that it is primitive. I had in my bedroom a floor of stone scantily covered with carpet, and ate my dinner, which was composed chiefly of macaroni, in a room also with stone floor and no windows at all, so that fortunately they

could not be open ; but the door was open, and thus to all intents and purposes I dined out of doors, which is never pleasant in January, even in Sicily. The host was literally a *killingly* handsome Sicilian, for he was one of those whom you always think of with flashing daggers in their hands and bent on murderous intents. He said he had a brother in America, who lived at Buenos Ayres, but frequently went up to New York.

The great attraction of Syracuse is the classic remains of its former greatness ; and these, I should say, are decidedly the third in Europe ; ranking next after Rome and Athens. They have that peculiar melancholy background which makes such a beautiful setting for things whose glory has departed. The hills are low, forming a blue line behind the town, broken here and there by the umbrella-pines ; and there are those long white roads so common in Italy, that are dazzling at mid-day, but lose their brightness at sunset when they fade out in the distance. All bears a look of decay, which is unrelieved by any activity in the present. Naples is one of the liveliest, noisiest cities in the world. Rome being an eternal city, has never a look of torpor and deadness, even in the midst of its ruins. Athens is a thriving modern town. But Syracuse is only a *memento mori*. There seems to be no trade, and nothing of modern times at all but life. There is always that in an Italian town : the gay dresses, and bright sunshine, and the violent gesticulation of the people, give the idea of life, though all else be dead.

They have two theatres in Syracuse, which are remarkable as having been largely hollowed out of one stone. We hear many complaints now-a-days of flimsy, insubstantial building, but these men of old built as if not for time but for eternity, and it brings to mind the description of the proud in the Psalms, "they think that their house shall continue forever." Instead of heaping up stones which might be thrown down, and not one left standing upon another, they hollowed amphitheatres out of the living rock. Here in these mighty play-houses of ancient Syracuse, the wild beasts of the arena, and the gladiator bleeding and vanquished upon the sands, were treading the same stone as the fair lady high up among the spectators, pointing with her thumb downwards, and making the merciless signal for death. Such buildings can never be *ruins* in the proper sense of the word, until some more geological eras have passed away, which shall so alter the condition of the earth as to render it no longer recognizable to the present race of men.

There is a species of pits in Syracuse called *Latomie*, which are perfectly unique. Amidst much discussion as to their origin and uses, it seems to be generally agreed that they were used as quarries. To the American mind there is not much that is picturesque in the idea of a quarry, and yet these are some of the most picturesque spots on earth. The most beautiful is the *Latomia de'Capuccini*, so called because it is close by the church of the Capuchins. It is a vast cavern, deeper than a respectable house is high, cut out of the stone, with its walls polished and quite smooth. Two immense piers of stone are left to support the roof, and give somewhat of the appearance of a cathedral underground, with nave and aisles, but long disused for all purposes of worship. For the ground, which is undulating, is thickly planted with orange trees and cypresses. Then there is an undergrowth of roses and acanthi; and the great masses of rock that have fallen down from the roof are entirely covered with olives and fig trees; and where these have left any space that a few gleams of sunshine can reach, it is filled up with ivy and other vines. The walls are smooth and shining, and curtained with wild creepers. In one place I saw a tree, to all appearance growing out of a large stone, without a handful of earth wherein its roots could find nourishment. And only by examining the spot carefully did I discover that the root, after striking the surface of the rock, had split into several smaller trunks which wound themselves around the stone before they reached the ground. It is a marvel of fertility even in Sicily—nature gone mad and asserting its rights over man as it did at the first, as it has often done since, and is to do in the end.

There are other *Latomie*, all of the same general type. One is now used by rope makers, and is called the "Grotta de' Corderi." There are men and women in gay Sicilian costumes, stretching ropes from one end of the vast cavern to another; they move about with a brisk motion, and the effect is very much that of a gorgeous ballet or Christmas pantomime, where sometimes a whole act is passed in the bowels of the earth.

Syracuse is a city which might be said to consist of two tiers, for there is almost as much of interest underground as there is above the earth, amongst other things, a curious cavern known as the "Ear of Dionysius." It is in the shape horizontally of the letter S, and vertically it is narrow and pointed like an ass's ear. Its acoustic prop-

erties are so marvellous that the tyrant Dionysius used to station himself comfortably above, and thence he could hear plainly all that was said, even though it might be in the lowest whisper, by the prisoners who were languishing in the dungeons below.

The catacombs too are scarcely inferior in interest to those of Rome, or those of Kieff, in Russia. They are of uncertain extent, and all that can be said of them is that they are vast, for, according to some authorities, they are eight miles long, while others think they reach to Catania, a distance of sixty miles. There are three tiers one above another, and their chief beauty lies in the frequent openings into the outer world, so that from these dismal labyrinthine passages underground there appear occasionally the most charming glimpses of the surrounding country.

The last night I was in Syracuse being the Epiphany, the murderous-looking individual with a brother in Buenos Ayres, took me to a suppressed convent where they had the *praesepe*, or representation of the holy manger at Bethlehem. In the end of the church where once the altar stood, was a large platform covered with grass, and trees in miniature, and rock-work, part of which represented the Ear of Dionysius, in whose gloomy vaults were men and women making cheese. The puppets were all dressed in the Sicilian costume, and the central group of course was composed of Mary and Joseph and the attendant angels in adoration before the holy Child. This was all very solemn, and the simplicity of it very touching. It seemed to bring the Star of Bethlehem, and the infant Saviour, and all the incidents and actors of the "sweet story of old" so near to us.

That morning I had been to Pontifical High Mass in the cathedral. Such an exhibition! First, there was a service at a side altar, with a great many priests "saying the office" and behaving outrageously. One of them amused himself by spitting with much dexterity and to a great distance. After a while some dozen bishops came in, whose conduct was if possible worse than that of the priests. They sat there with their gross, sensual faces, and plainly showing that they were very much bored by what was going on. Two of them seemed to me to be quarreling, for they looked at each other like thunder clouds, and talked in loud, angry tones. Perhaps, however, it was only a discussion, in which they were growing warm. I had not the slightest idea what all this bad behavior

meant, but it seems they were dressing the archbishop, who appeared presently all ready for Pontifical High Mass. He was a repulsive-looking creature, and so fat that he literally waddled. His feet were quite shapeless, toes and instep and the distinctions of ordinary feet being lost in fat. Sitting in his chair, he preached a sermon which was not devoid of a certain kind of eloquence. The small congregation left their seats and crowded round the archiepiscopal throne to hear it, and there was a murmur of applause and suppressed bravos when it was over. From the fact of his looking at me and shaking his fist at me through the entire oration, which consisted chiefly of denunciations of heretics, I had the vanity to suppose that much of it was meant for my benefit.

The last place I saw in Sicily was Taormina, or as it was in classic times, Tauromenium. It is on a mountain, perhaps three-quarters of an hour's walk above the railway station. There is a ruined theatre not of unusual interest, but everybody should go to look at it and brave the loquacious *custode* for the sake of the magnificent panorama it affords of the Sicilian coast. I do not like panoramas as a general rule. They are apt to be spotty, and in the multiplicity of objects seen, nothing is seen well. Maps in nature are very apt to be like maps on paper, a number of different colors, in which you would not know which was land or which was sea unless you were told. But at Taormina there are distinct objects clearly relieved against what some one called a "background of infinity." Through the ruined and broken arches of the amphitheatre there shines the bright expanse of the sea, and the rocky line of the coast stretching away past Naxos to Catania and Syracuse. Then close by is the ancient town, like Sicily itself filled with bits of broken buildings of every age, and the most prominent object in the whole scene is the snowy mass of Etna sloping majestically down to the sea.

It was a pleasant way of ending my short tour in Sicily, the beauties of nature which are perennial set in a framework of the decaying, perishable beauties of art. I hope it may long linger in my memory like the "summer sunset" of the Golden Legend. And I would advise any one who loves the beauty of Italy, who has seen the lake of Como, and the Campagna, and Sorrento, to visit those shores, of which I shall always cherish an affectionate remembrance. In our life which is generally so dull and commonplace, it is refresh-

ing to see places which we have known in books and pictures, and tread the ways that were familiar to us in our childish dreams. Some of these dreams perhaps were more beautiful than the reality, but with Sicily that can never be. Raise your expectations as high as you can, read the most enchanting descriptions that you can find in poets of an earthly Paradise, and nothing will be disappointing in that beautiful island, which you will delight in while you are there, and long for after you have left it.

H. I. M.

GARFIELD'S PLAN OF RESUMPTION—BY VOTING OURSELVES BACK TO SPECIE.¹

GENERAL GARFIELD'S article on "The Currency Conflict" in the *Atlantic*, for February, sheds nearly all the light on our currency question that can be shed from books, and that is—none at all. Books can no more teach the American Congress how to resume specie payments than they could teach Girard how to get rich, Napoleon how to win a battle, or Webster how to make a speech. We have Congressmen who have read nothing. Garfield is far above these. But a statesman would be one who having read what has heretofore been done in a manner wisely applicable to other occasions and people, should now do something equally applicable to our own occasion and needs, and worthy of furnishing new reading matter to those who are to follow. So far as the article in the *Atlantic Monthly* indicates, Gen. Garfield is merely cramming precedents, not inventing new ones. Greeley thought he could resume simply by writing over the door of the U. S. Treasury, "The United States have resumed." His reserve fund for sustaining seven hundred millions of national and bank paper at par was simply "gush" and "sign painting." Garfield thinks to resume on a mere majority of votes. He regards the question not as one of means but of doctrines, not as requiring gold which we haven't got and which, if given us, we couldn't keep, but as requiring only votes, opinions, unanimity, a general hand-shaking all around, and a resolution to stand by coin as a Hindoo would stand by his God, whether he can see him or not—and even if he knows that the god in question is an imported

¹ By Van Buren Denslow, Professor of Political Science and Law in University of Chicago.

gew-gaw of British manufacture, designed expressly for him on the theory that he is either a child or an ass.

Has it crossed Gen. Garfield's fancy that if the American people should vote unanimously to resume, Resumption would still be as far off, and no farther, than if they should vote unanimously not to? He informs us that Secretary Chase declared that no man could foresee what mischief the greenbacks would do. Very likely, since no man can foresee anything. Also that the statesmen of 1862 were agreed that the only safe instrument of exchange known among men was "standard coin, or paper convertible into coin at the will of the holder." Gen. Garfield knows, with Albert Gallatin, that, "of course the implied condition on which alone a paper currency can be redeemed is that it shall not be presented in any considerable quantities for redemption." We never had a paper currency in the United States on which redemption could be maintained if more than a fifth of it were presented at a time. Hence the currency which he defines as the only safe one known among men is a pure figure of speech, an ideal abstraction. No such thing was ever known among men. No one doubts that a paper money, at par with gold, has some advantages, so long as it continues redeemable, over one that is not. But it has this disadvantage compared with ours, that when its undue expansion produces depreciation, it is not detected at first, but keeps going on until the disastrous exposure and collapse. Then money which is to-day at par is to-morrow worthless, while the exact degree of depreciation in our present currency is always apparent. But no paper currency has ever been issued whose redemption did not rest on contingencies. Even \$70,000,000 of the notes of the Bank of England rest on the contingency of the government being able to repay to the bank the loan on which, in part, it was founded. The opinions of Fessenden, Sumner, Lovejoy and Stevens in 1862, are quoted, all going to show that they then thought the legal tender note would ruin the country and that they voted for it only on grounds of overwhelming necessity. What necessity there was of ruining the country in 1862 we fail to see; but admitting that these gentlemen thought the country needed ruining at that juncture and that the legal tender note was necessary for that purpose the result proves they were mistaken, and that the greenback note kept nearer par and did more good than their prophecies. The opinions of Jefferson, Burke, Webster, Macaulay, Bastiat, Cal-

houn, Alison, Doubleday, John Law and others are quoted in brief sentences, as a child would quote texts of Scripture, upon a point of science, to prove that they thought a medley of queer things, some of which Gen. Garfield holds to be "hard money" and some "soft money" doctrines. He then defines "hard money," not as a currency consisting of specie, but as paper money or "credit currency" convertible into coin at the will of the holder. Does he forget that it was this very paper money, pretending to be convertible into coin, etc., which Mr. Webster thought had such a fertilizing effect upon the rich man's field, by copiously irrigating it with the deep currents of perspiration which the fatal genius of Gen. Garfield's "hard money" caused to pour forth in never exhausted and illimitable cataracts from the poor man's brow?

Webster was not thinking of greenbacks at eighty-seven, but of bank notes purporting to be at par—of just the "hard money" which Gen. Garfield proposes to bring us to—when he cursed them with his sophomorical exuberance of rhetoric and deficiency of economical knowledge.

In usurping the old Bentonian, Jacksonian name "hard money" for the Garfield notion of a "paper money redeemable in coin," Gen. Garfield is borrowing the livery of an exploded school of Indian-fighting political economists of the Daniel Boone and Kit Carson order, under which to serve a modern constituency who have at least got rid of some of their old stupidity, but have not lost all their admiration for the names under which it went. Under pretence of giving us "hard money," Jackson aided in giving us in 1837, a kind of money which had \$19 of inflation in it for one of specie reserve. If this be the political economy of Indian-fighting militia generals like Jackson and Benton, let us have no more of it. In addition to a general belief that a paper currency at par with specie is better than one below par, we need intelligent plans, efforts, labors and vast results before the change can be effected. It cannot be done by voting in Congress or at the polls. It implies and requires as essential prerequisites a considerable natural inflow of gold into the country, not as a forced measure but in payment for the excess of our exports over our imports—also a considerable excess of government revenue in gold over expenditures—also an improved, hopeful, buoyant condition of industry—toward none of which are we now tending. It requires that the debtor class shall be permitted to pay

their debts in the existing greenback currency, or if they pay them in gold or in a paper currency at par with gold, then that the nominal sum be so reduced as to make the actual payment in gold, the same as if it were paid in greenbacks, otherwise resumption itself will "water the rich man's field with the sweat of the poor man's brow." It requires that either the government or the banks shall put forth a new paper currency at par with gold, and the redemption of which at par with coin shall be assured. No step has yet been taken toward putting forth such a gold note currency either by the banks or the government. It requires that such new currency shall be voluntarily substituted for the old at their actual relative values without substantial loss to any class. And when the government has furnished, or induced the banks to furnish, a paper medium in which business can be done on a basis at par with gold, that then, and not before, the legal tender law be repealed as to future contracts. It may yet be found that it requires that the National Banking System shall be welded into greater unity by establishing one great Central Fiscal Agency, equalling in security and in capital and rivalling in dignity and importance the Bank of England, which shall be the central clearing house of the entire banking system, using the strongest banks in our leading cities as its branches, and affording such a basis of financial credit as shall attract to its vaults the gold which is now exported to countries where gold attains the highest utility it can ever attain, in being the basis on which the bank-note is issued and the reserve fund by which it is held at par. It may, on the other hand, be found that the mutually skeptical, withering, consciously stupid and utterly paralytic tendencies which have characterized the inaction of Congress during ten years past, will crown the proofs beyond further argument that democratic institutions are a failure as concerns financial problems, since they admit of no wiser legislation at the capital than has previously been understood and ordered at the polls, which is equivalent to a veto on any wise legislation whatever. For however we may respect the will of the forty millions on questions of justice, of impulse, or of character, to suppose that the average view of the forty millions is financial sagacity, is to say that the American citizen is by birth a political economist and a financier. The American citizen himself would be the first to disclaim these attributes, if not on his own behalf at least on behalf of all the others of his class. Whatever else

may be found, it will not be discovered that the country can grow rich while its politicians are making war on the currency we have, without developing the sagacity to first substitute a better one in its place—like the philanthropic incendiary who should expect to clothe the people in velvets and silks by simply burning up such rags as they are now able to wear.

DR. HORACE BUSHNELL.

OUR country is the poorer by the loss of a great, good man, of a bold thinker and a powerful writer, in the death of Dr. Bushnell of Hartford. In all the American churches, in literary and theological circles beyond the Atlantic, his loss will be felt and mourned; while the elect few, who called him master, mourn for him as David mourned for Jonathan. The painful, suffering years of his later life were those in which his literary activity was greatest; we knew not what new surprise to expect from his unwearied pen; but now that death has closed the record we are already invited to form some estimate of the man's whole work, and to measure his contributions to the intellectual and theological wealth of our literature. In that literature he holds a marked and peculiar place, as one of the few generative thinkers in the highest of the sciences, that America has to present, the others being Jonathan Edwards, Thomas C. Upham and John W. Nevin.

He was the son of a farmer, and a native of Connecticut, born there in the second year of the century, and a Puritan of the Puritans. What his native State was to him may be seen in his "Historical Estimate of Connecticut" (1851), which closes with that fine description of her record as "a history of practical greatness and true honor, illustrious in its beginning, serious and faithful in its progress, dispensing intelligence without the reward of fame, heroic for the right, instigated by no hope of applause; independent, as not knowing how to be otherwise; adorned with names of wisdom and greatness, fit to be revered as long as true excellence may have a place in the reverence of mankind."

It is superfluous to say that he studied at Yale, where he became a

tutor in 1829, after two experiments at editing a newspaper (*The Journal of Commerce*), and at teaching school (Norwich Academy). He was still undecided between the pulpit and the bar, and while he at last—and we think most wisely—fixed his choice upon theology, fondness for the study of jurisprudence seems never to have left him, but has left its traces upon all his theological works, even in those in which he is engaged in combatting theories borrowed by the gentlemen of one long robe from those of the other. After circulating for some time among the churches as a licensed preacher, he was called to the pastorate of the North Church of Hartford, which shows that he at once made his mark as a preacher—that being one of the most important churches in the State. He remained its pastor for twenty-six years, only resigning in 1859 because of ill health. An oration on “The True Wealth or Weal of Nations” (1837) gave him celebrity outside the circle of his own and the neighboring parishes, and some articles in periodicals showed such as had eyes to see that Bushnell was a man far above the average of his profession in incisiveness of thought and power of expression.

But it was not till ten years after that oration that he came prominently before the theological public, as a setter-forth of strange doctrines. He had been led, both by his own thinking and by his study of the Puritan theologians of both sides of the ocean, to doubt the soundness of the theory of conversion current in the New England churches, and indeed in pretty much all of the bodies called Evangelical. That theory he saw had come into New England with the Methodist movement, which Whitfield originated and Jonathan Edwards patronized. It had met with some timid protest at the time, but had made head because espoused by the most ardent and living preachers of the day. It set up the conscious conversion of adults as the one door of admission to the church, and taught that up to a certain point in his life every human being does and must continue in a state of enmity to God, all his best acts being not merely tainted with sin and imperfection, but themselves sins in God's sight. Out of this state the sinner must pass by a conviction that he is lost and undone, followed by a conversion from absolute spiritual darkness into the light of God's grace. And this change is wrought in the man only in years of discretion and conscious responsibility. In an article in *The New Englander*, Dr. Bushnell had the audacity to express some doubt of this. He

did not, like all High-churchmen, ascribe to the rite of baptism any regenerating or transforming power; but he asserted that the Christian family is an organic unity, with a spiritual life of its own, and that children born into the fellowship of that life may, and in all ordinary cases will, grow up into the conscious service and love of God, before they become in any way conscious of any enmity to God. He was taken to task for his statements by some members of the Hartford Ministerial Association; and to obviate all misconceptions of his view, he prepared a paper which was read before the Association, and after some unessential modification, proved satisfactory to his brethren. Would he not publish it? Yes, but where? The Massachusetts Sabbath-school Association would probably print it. He thought not, but had no objection to trying them. His manuscript lay for six months before their Executive Committee, being read in turn by every one of its large membership, until the paper all but came to pieces. It was twice returned to him for qualifications or modifications, which he felt free to make; and at last was unanimously approved and published as *Discourses on Christian Nurture*, 1847. So much censorship might have seemed warrant enough for the work, but the ultra-orthodox Professors of East Windsor Theological Seminary scented "dangerous tendencies," and sounded the alarm in a studiously meek and mild but mischief-making letter. The Orthodox churches of Massachusetts took fright; the panic of the Unitarian controversy and its consequent secession had never left them. Bushnell was openly insulted at their State Convention, which he attended; and the Sabbath-school Association were constrained to withdraw from publication the work to which they had given their deliberate and careful approval. Of course it was at once re-published by the author, together with other articles and sermons, one of which was "An Argument for Discourses on Christian Nurture." Those who read the book as Dr. Bushnell has re-written it in later years, will get more thought and instruction, but they miss the racy sarcasm and fun of this first edition. There are passages in it that Warburton would have envied, while even in the midst of indignation a higher spirit than Warburton ever showed is never absent. Take for instance this sketch of the East Windsor Seminary:

"We have a little institution, sworn every six months to suffer no progress, also to maintain the new-light doctrine [of Whitfield

and Edwards] as equivalent to all antiquity, and probably fulfilling its oaths with religious fidelity—therefore certain, as we suppose you will see, to condemn others with as little reason as it is permitted to exercise for itself. It has three professors and twelve or fifteen students, and calls off one or two ministers from their charges, a considerable part of the time, to gather up the requisite funds. To maintain its hold of public favor it is obliged, of course, to do something more positive than to evince its repugnance to progress by a regular diminution of its own numbers; and since the turning out of four or five young preachers a year is no such rate of propagation as justifies the heavy expense of three salaries, it must make up the deficit and keep the public apprised of its existence in some other way. That such an institution suffers many severe alarms for the truth, busies itself in a general censorship, becomes first an annoyance and finally a subject of mirth, is well understood in Connecticut, and without any reports from us you can easily show yourselves, out of the facts, that so it will be. You will even anticipate, without any notes of history from me, acts of private meddling that disturb good neighborhoods and discourage the most conciliatory purposes.....But it ought not in the least to surprise you. For no matter how much you may rely on the character of the men; a band of angels subjected to such terms of existence would have need to pray, 'Lead us not into temptation.'"

Probably nothing that Dr. Bushnell ever wrote has exerted so great an influence upon the American churches as this first work. It has not, indeed, set aside the practical theology of Whitfield and the Methodizers; for as we have seen during the winter just past, that theology and the revival system which grows out of it keep a firm and fast hold on the religious world. But it has sown, deep and widely, a profound discontent with the system and its methods in the more thoughtful minds of the churches; it has added to the strength of those of the churches in which other ideas of the nature of the Christian life are fostered; it has strengthened and confirmed the traditions older than the age of Methodism, which seemed ready to perish out of many of the churches. And when a new age comes, and the whole spasmodic system of Sabbath-schools, prayer meetings and revivals is swept away from our midst, men will thank God for the good service rendered now thirty years ago by this Connecticut pastor.

Two years later than this appeared his *God in Christ*, which excited a still greater theological interest. It showed that he had been striking out new paths for himself in the higher and more abstract regions of theology, as well as in the more practical, but not now in the line of the older traditions of the fathers. In revulsion from the tritheism which generally passes for trinitarianism in our religious world, he avowed a theory of the Trinity which is substantially that of Sabellius, *i. e.* resolving the distinction between the three into little more than an appearance. Here we think he was less happy than before, as all reaction is no better than a criticism. If we must have a theory upon the subject, that of Sabellius is as good as any; but the old Athanasian decisions, which are in the main the denial of any possibility of a theory, are the only interpretation of the statements of the New Testament on the subject that has authenticated itself historically. They have outlived all the rival statements and contradictions of the age in which they were promulgated, and they seem likely to outlive all that have originated in later times. There is a "conflict for existence" and a "survival of the fittest" in theological history, as well as in natural history.

As might be expected, all orthodoxy was up in arms, and Dr. Bushnell was tried for heresy before the Association, but acquitted; and for a time the party feeling ran very high. In 1851 he published *Christ in Theology* as a sort of explanation of his position, and took ground that it is not possible—because of the inadequacy of human language—to give fitting, *i. e.* rigidly scientific expression to the mysteries of the Christian faith; which we take to be an approximation to a sounder position.

For seven years he published nothing of importance, but in 1858 appeared his *Sermons for the New Life* and also his *Nature and the Supernatural, as Constituting the One System of God*. The former at once gave him a foremost place among the great preachers of the age. They are sermons of no ordinary cast, but at once weighted with thought and sped on the pinions of a masterly eloquence. Their peculiarities can be read in their titles: "Every Man's Life a Plan of God," "The Capacity of Religion Extirpated by Disuse," "Obligation a Privilege," "Respectable Sin," "The Efficiency of the Passive Virtues," "The Hunger of the Soul," "The Reason of Faith." They attracted attention beyond the ocean. Robertson of Brighton borrowed the text and the theme of that

on "Unconscious Influence," and Frederick Maurice pronounced them a great and valuable addition to Christian literature. But *Nature and the Supernatural* furnishes still greater evidence of its author's intellectual power. It is a body of Christian philosophy, not of the timid, half-hearted sort, but audacious and consistent in the sweep of its reasoning. The current notions that refer the supernatural to the past ages of the world, he sets aside as contrary to all true experience, all deeper insight. Did we not know as much from other sources, we might readily infer from some of his positions, (and also from his abundant quotations from H. W. J. Thiersch's *Christliches Familienleben* in the new edition of *Christian Nurture*.) that Bushnell had studied with some interest the curious phenomena of the Irvingite movement, which are alleged as supernatural by the members of that "Catholic and Apostolic Church." One of his Hartford friends, Rev. S. J. Andrews, is avowedly in its membership and its ministry, and others in the city are spoken of.

In 1864 he collected a number of his scattered pieces in *Work and Play*, and published a second volume of sermons with the title *Christ and His Salvation*. In 1865 he did his best to shatter all his new-found favor with the religious world by his treatise, *The Vicarious Sacrifice, Grounded in Principles of Universal Obligation*. In this he sets himself against the current view of the atonement, as an *expiation* for sin, maintaining that that conception has no sanction in the Scriptures. As is well known, there was no theory of the nature and the method of redemption current in the church until Anselm, of Canterbury, in his *Cur Deus Homo*, enunciated that of Christ's payment of the sinner's debt to God by His obedience to the divine law—this debt being that submission to the divine will which is set aside by sin. Anselm said nothing of any punitive element in Christ's sufferings, and, indeed, laid no special stress on the death of Christ; but the doctrine that Christ died to "endure the punishment due to us for sin," and to "pacify the wrath of God," began to be taught before the Middle Ages were over, and was substantially accepted by the Reformers, who chiefly differed from the Catholic theologians in emphasizing the position that the satisfaction is due to God, not as one personally offended and dishonored, but as a "public person," the representative of the law and the justice of the universe. In the orthodox churches of Scotland and America

this theory has held its own for the most part, but in those of Germany it has generally given way to another view, which was enunciated by an equally great theologian of the same age as Anselm, but one less understood and appreciated, the acute Abaelard. In this view also the purpose of atonement and reconciliation is recognized as the motive of Christ's incarnation and death, but it regards man and not God as the one thus to be reconciled. It looks on redemption as the quickening of love in the heart of the sinner, and the bringing him into such an assurance of God's love as transports him from the despair of the lost to the faith and trust of the saved and reconciled. This view was stoutly contended for in various forms by the mystical theologians; its adoption by Bengel and others gave it a general currency among orthodox German Christians, and it is now the prevalent one in the German churches, even with theologians who in other points cling to the orthodoxy of the sixteenth century. It is in the main that maintained by the few distinguished theologians—McLeod Campbell, Thomas Erskine, David Scott, etc.—who left the Scottish Kirk nearly half a century ago. It is, therefore, also the view of the remarkable group of English churchmen—Frederick Maurice, F. W. Myers, Frederick Robertson, Charles Kingsley and others—who were influenced by these Scotchmen. And it is this view in the main that Dr. Bushnell defends, though with characteristic differences due partly to his personal idiosyncrasies, and partly to his theological descent as a New England theologian. Regarding Christ's death as a sacrifice, he seeks to show that it is not one that differs in kind from the sacrifice which every good man makes for his fellow man—which the mother makes for her child, and the patriot for his country. Rejecting all theories of a legal imputation of our sins to Christ or of Christ's satisfaction to us, he asserts that He is one with us in His sacrifice by the bonds of love and sympathy, and that we are one with Him in sharing the salvation He brings when He has thus awakened love and sympathy in us, and reconciled us to God by slaying our enmity. In his last years Dr. Bushnell was led to a modification of this view in the direction of the orthodox theory, by the feeling that the representation of the divine mind as passive and inert in the presence of human sinfulness, was not in conformity with the feeling and experience of the most godly men; but even this modification leaves him in a general attitude of hostility toward the received doctrine.

As Dr. Bushnell was no longer a pastor, his new work could not provoke any ecclesiastical action; but even if he had been one, he would probably have been let alone. The failure of the previous prosecution had very greatly strengthened his general position in the church. Most of the points now made at large and explicitly, had been put forward more briefly in his *God in Christ*. And above all, in the New England churches, as contrasted with the other Calvinistic bodies, there had been a half-way surrender of the orthodox position on this very question, so that the few, who held the old form of the doctrine would certainly have been outvoted if they had raised issue on that; and the many who had given up half of it would have found it awkward to frame an indictment against him for throwing over the remaining half. But his book provoked many replies. It was, like most of his later works, reprinted in England, and commanded much attention there.

In 1868 he collected out of a New York magazine a series of essays on *The Moral Uses of Dark Things*, and in 1869 he published a vigorous and very characteristic attack on the Woman's Rights Movement—*Woman Suffrage, the Reform Against Nature*,—which is certainly the most readable piece which that controversy has evoked. The dedication to his wife is one of the most beautiful specimens of that species of writing to be found in any language—but the strong-minded assert that both his wife and daughters are ardent advocates of Woman Suffrage, and that it was well said “a man's foes shall be they of his own household.” He says:

“For once I will dare to break open one of the customary seals of silence, by inscribing this little book to the woman I know best and most thoroughly; having been overlapped, as it were, and curtained in the same consciousness for the last thirty-six years. If she is offended that I do it without her consent, I hope she may get over the offense shortly, as she has a great many others that were worse. She has been with me in many weaknesses and some storms, giving strength alike in both; sharp enough to see my faults, faithful enough to expose them, and considerate enough to do it wisely; shrinking never from loss or blame, or shame to be encountered in anything right to be done; adding great and high instigations—instigations always to good, and never to evil mistaken for good; forecasting always the things bravest and best to be done, and supplying inspirations enough to have made a hero, if they had not lacked the timber. If I have done anything well, she has been the more really in it that

she did not know it, and the more willingly also, that having her part in it known has not even occurred to her, compelling me thus to honor not less, but more, the covert glory of the womanly nature, even as I obtained a distincter and more wondering apprehension of the divine meanings and moistenings, and countless unbought ministries it contributes to this otherwise very dry world."

In 1870 he contributed to *Scribner's* a remarkable essay on "Free Trade and Protection," in which, after conceding the economic force of the Free Traders' arguments, he showed the necessity of Protection on purely national grounds.

In 1872 appeared his third volume of sermons—*Sermons on Living Subjects*—and in 1875 his new treatise on the atonement, already referred to. This closes the list of his published works, making twelve stout volumes, besides uncollected articles and discourses. And in no other twelve volumes of American literature, unless it be Emerson's, is there such a wealth of thought on great themes.

That the man was still greater than his works, is the testimony that all his friends bear to him. Behind all his work lay one of the loveliest and tenderest of souls—a sweetness and a patience that had been deepened and purified by half a life-time of suffering. In all who were personally associated with him, he awakened the warmest affection; and no difference of opinion on even the weightiest matters could alienate those who came within the reach of his influence. In his outer person there was something leonine and massive, combined with a certain careless abandon. Rev. W. L. Gage, well known for his translations from the German, thus describes him in an account of a visit to the Hartford Ministers' Meeting:

"First in eminence and first, perhaps, in general influence, is Dr. Bushnell. As varied in the play of his mind as the colors of the clouds, he rises at times no higher than the average level of thought, and at other times he towers up like a great three-decker of the old time. The diction less studied than in his writings, often studiously inelegant and inexact, as for example in his frequent 'it don't' and 'it ain't,' is always rugged, nervous and energetic, and almost always fringed by some quaint word that takes his utterance clear right home and becomes unforgettable. No one would fail to pick out Dr. Bushnell. At any rate I guessed him at a glance. That fine head, with its lion-like mane of iron-gray hair, tossed about in a disorderly regularity, those beetling brows and piercing eyes, that energetic angularity of movement—these, taken apart from the decision of voice and massive thought, indicate instantly this American Colossus. Yet he is very unequal here; sometimes

he is tender and spiritual, sometimes silent, and lets his turn pass without a word; sometimes sharp and cutting, and once in a while, when waked up by opposition, or better still, when inspired by the subject, he comes out in a manner which no adjective can describe but magnificent."

In his mental cast he was essentially poetical and imaginative—"the Tennyson of theologians," somebody has called him. While not devoid of ratiocinative power, and even keen to detect the logical as well as the moral fallacies of the theories he opposed, he was greatest in the gifts of divination and intuition. But he possessed a robust good sense and a natural acuteness which served him well for ballast. There is a fine vein of delicate humor in his best literary work, and he had the mental alertness which helps a man to an impromptu retort. He once, for instance, got a subscription for building a new church from an avowed and miserly infidel by asking him to consider what real estate would be worth in Sodom.

His limitations and shortcomings as a theologian and an author are easily got at. We shall specify but two.

Bushnell's theology, like Beethoven's music, came short of the highest perfection for want of the thorough discipline, the complete learning, which gives Mozart his place above his rival. All sound progress must be in the line of what has already been effected; every to-day in science begins where yesterday left off. Dr. Bushnell's work is much of it defective and temporary, much of it merely reactionary, because it lacked this historic continuity. He did not always see his way to doing full justice to his predecessors; could not always discern how the people around him could be carried forward by simply using their present views as premises which led on to conclusions not yet reached. He did not discern the value of what he opposed; he set himself to destroy and overturn what we believe to precious convictions deeply rooted in the minds of his countrymen and contemporaries, with which they could ill dispense.

As a writer he had not that filial reverence for his mother tongue, and her established usages, which we would have rejoiced to discern in him. He let his powers of invention take the turn of coining new phrases, and devising new refinements, which greatly detract from the merits of his really great and splendid eloquence. And these innovations were not in the line of the language's historical growth; they were often alien to its whole genius and established character. And smaller men, unable to follow him in anything that

he had of great or noble, ape and imitate this unhappy peculiarity just as small men imitated Napoleon's strut, Candlish's awkwardness, or Grant's cigar. And here also is what will be a great weakening of the man's just influence; for these imitations will ere long so associate his name with verbal and phrasal affectations, that those who have not already made acquaintance with his books will not be easily induced to do so.

But take him for all in all, we shall not soon see the like of Horace Bushnell.

JOHN DYER.

A FEW THOUGHTS ON SUBJECTS OF PRESENT INTEREST.¹

THE cause of the present depressed condition of business generally in the United States, is to be traced mainly to the discovery of the precious metals in California in the year 1848, and their subsequent discoveries elsewhere.² The telegraph, the railroad, and steam in its varied applications, have had their powers intensified, and their activity quickened by them, and other agencies under the same influences have so contributed their parts that the whole universe may now be made to quiver when touched at any point.

This depression is by no means peculiar to this country. Wherever the stimulus produced by the large additions to the stores of the precious metals extended, activity in all the departments of industry was carried to its highest pitch,³ and in the year 1873, the climax of our production having been reached, the natural results have followed, and they are now felt in all parts of the world in the proportion in which the stimulus was distributed among them.

The United States, as a new country, became a centre of emigration. Improvements of all kinds were made as if by a magical touch, countless railways on a scale of grandeur never before

¹ By John Welsh, President of the Philadelphia Board of Trade.

² The product of the precious metals since 1848 is four thousand millions.—*Journal of Commerce, N. Y.*

³ In 1850 the product of pig-iron in the United States was 563,755 tons, and in 1875 it was 5,439,230 tons.

contemplated,⁴ even to the spanning of the continent, were constructed, and expansions of every imaginable mode of industry were common everywhere; so that in no previous twenty-five years in the world's history known to us did any country grow in population, productiveness and wealth, like unto our own. Great Britain and its colonies felt the influence of this new state of things to a very great extent, and their condition at this moment varies but little from that of the United States. The continent of Europe, saving those parts of it whose relations with the gold-producing countries are very limited, has been scarcely less affected. The great wars in Europe and the United States have materially increased the debts of several nations, and for a time stayed their productiveness; but those disturbances have had less to do with the peculiar circumstances now prevalent than are attributed to them.

If it be maintained because of the inactivity of capital, the unproductiveness of labor, and the numerous commercial and other failures here, that the United States are the greatest sufferers, and that the suffering is to be attributed to our late war; or, on the other hand, that these evils are the legitimate fruits of an irredeemable paper currency; then how is it that in Great Britain and her colonies, which have all the while been at peace, and have a currency free from the features which are charged as objectionable in our currency, the same phenomena are observable; whilst France, which has suffered from a most destructive war, and has had an irredeemable paper currency, is comparatively free, and Germany, after being largely compensated for all her expenditure in the war, and having a redeemable currency, is the subject of very considerable depression?

Nothing is more natural than the existing condition of the industries of the world. Excessive stimulus has caused injudicious direction to be given to them, and on every side is to be seen such an increase of machinery that with six months' continuous action the product would equal a year's consumption. It may not be extravagant to say as an approximation that of the investments in railroads alone in this country one thousand millions are unproductive; and what vast sums might be added to this were the other interests in-

⁴In 1848 there were in the United States 5,996 miles of railroads, costing \$420,000,000. In 1874 72,643 miles, costing \$4,221,763,594, or twice the amount of the debt of the United States, which on 1st of June, 1875, was \$2,130,119,975.

cluded? And as it is here, so in many other parts of the world are to be found unproductive investments, and the inconvenience resulting therefrom. The exhaustion consequent upon this excessive action is most serious, but by no means fatal. It is only in degree that our inconvenience differs from that of the rest of the world. Theorists find occupation in ascribing the troubles to a disregard of their hobbies—the bullionists to a paper currency, and inflationists to the need of more paper money. The sources of them are, however, more remote, and are to be attributed to an excess of prosperity—a very common cause of trouble—rather than to local errors or minor agencies.

Notwithstanding this, the subject of the currency is worthy of the most careful study. The conflicting views which prevail in regard to it, the various thoughts on it which have been uttered by distinguished men, and which are not in harmony with pre-existing opinions, and the great interest which, at this moment, the action of political parties has attracted to it, make it desirable that every one who has an opinion upon it should express it, and that all the views, thoughts and opinions which are expressed should be subjected to such tests as will determine their value and assign to them their true place in public estimation.

The desire for a flexible currency, as it is called, is said to prevail generally. It is to be a panacea for panics and a power to allay every possible financial disturbance. The plan for its provision, which has been presented in Congress by Judge Kelley, is the one which is most prominent before the country. Anything coming from this gentleman is entitled to great respect. He has labored long and faithfully in the public service. He is most unselfish in his devotion to the interests of his constituents. His public efforts in and out of Congress show intelligence, research, great force, and a broad reach of statesmanship; and, although generally agreeing with him in his views of public policy, what he has in this instance advocated with so much ability and earnestness, appears to me to be fraught with difficulties of a most serious and destructive character.

His plan, stated simply, is this, the Treasury of the United States is to have a new duty assigned to it. All its offices are to be authorized to receive deposits of legal tender notes, in sums of fifty dollars, and its multiples, and in lieu thereof are to be given United States bonds, bearing an interest of 3.65 per annum—interest pay-

able semi-annually—which bonds are to be payable on demand with accrued interest. Of the legal tenders so received one-fourth are to be held as a reserve fund, to meet 3.65 bonds which may be presented for repayment, and three-fourths of the legal tenders are to be used in the purchase or redemption of the outstanding debt of the United States. And, in addition, the national banks are authorized to hold 3.65 bonds for a reserve, instead of legal tenders, as now required by law.

The two great objects to be gained by this, as claimed by Judge Kelley, are first, a flexible currency; that is, when currency is in excess it may be exchanged for bonds, and thus be made less abundant, and when currency is in short supply bonds may be exchanged for it, and thus be made more abundant; and, second, the transfer home of the debt now due by the United States abroad, that the payment of the gold interest in foreign lands may be stopped, which, to use the words of the honorable gentleman, "Is what is crushing the hearts and the hopes, and undermining the morals of the laboring people of our country." (p. 21. Judge Kelley's letter to his constituents.)

Before proceeding to an examination of this interesting proposition it is well that we should understand its predicted effect when put into operation, lest our conclusions should be warped by some insensible influence, and incorrect results be reached. To avoid the possibility of that we have on page 23 of Judge Kelley's letter to his constituents, &c., the following passage as uttered by him in Congress, in which it is definitely stated: "It would give the Government immediately—when I say immediately, I mean within, say, six months from the time when the first bond should be issued—about five hundred millions at that low rate of interest, payable to our own people within our own limits, with which to redeem gold bearing bonds now held by foreigners. It would relieve us of that amount of that 'debt abroad' which so curses us."

The plan suggests three questions:

First, is this a measure of inflation? As it is not proposed that there shall be an increase in the legal tenders, it does not involve an increase in the sum of the legal tender currency. The flexibility of the currency is to be attained by its flow into and its flow out of the United States Treasury, in accordance with the wants of the community, but the bank reserve is to be released and a treasury reserve

is to be created, and on the relations between these two reserves mainly rests the answer to this question.

The reserve required to be held by the national banks, as stated by the Controller of the currency in his report of December 6, 1875, see page 53, was on October 1, 1875, one hundred and fifty-one millions, six hundred thousand dollars. This reserve, it will be remembered, consists of legal tenders and bears no interest. Under the proposed law it would be exchanged for bonds bearing 3.65 interest, and, consequently, this amount hitherto held in confinement would be released. On the other hand, at the end of six months, on Judge Kelley's estimate, the deposit in the U. S. Treasury will be five hundred millions, which, under the proposed law, will require a reserve of twenty-five per cent. or one hundred and twenty-five millions; and as the sum released exceeds the sum reserved by twenty-five millions, six hundred thousand dollars, that would be the extent of the inflation the first six months from this cause, varying more or less in accordance with any deviation from Judge Kelley's estimate. How far the 3.65 bonds may enter into circulation is a matter of conjecture. They would be redeemable with greenbacks in all the leading commercial cities of this country; and as they would bear interest and also be peculiarly convenient for transportation, the probability is great they would compose a very considerable part of the circulation. Thus by the release of the reserve and this new element in the currency its volume would be materially increased.

The second question is: How will the action of the Treasury Department, as a place of deposit or savings bank, disturb existing systems, which, from long standing, are most intimately interwoven with the great material interests of the country?

Judge Kelley estimates the deposit in the United States Treasury within six months at five hundred millions of dollars. This ought not to be a mere random guess. It is a result, no doubt, reached after great research. His associations are such as to justify the opinion that it has been arrived at after a close and intelligent scrutiny, and it must be taken as a fact which will be realized. Being so, it presents a most serious aspect. It must be borne in mind that this is not to be capital newly acquired, not the fruits of a few days' industry, nor of a vein of newly-discovered ore, or it were a matter of little moment. It is existing capital; capital that has

been and is doing its work here and elsewhere. There is, strictly speaking, but little idle capital. It is more active at one moment and less active at another. Even the little that is found in men's pockets is capital in transitu. That which is deposited in banks and savings institutions is part of the great mass performing its daily operations. Therefore, if, at the end of six months, five hundred millions are to be on deposit in the Treasury of the United States, which were not there at the beginning of the six months, where can that capital have come from? It can have come from no other than its ordinary places of deposit, the banks, the savings banks and kindred institutions. The deposits in those institutions now approximate two thousand millions, but, as to a certain extent one is the depository for another, and the cash reserve (say one hundred millions) is twice counted, a fair estimate may be nineteen hundred millions; and that vast sum does not lie in their vaults in currency, but is largely represented there by mortgages and bonds, many of them bonds of the United States, and notes of hand, known as commercial paper; and just to the extent that the deposits in these institutions are transferred to the Treasury of the United States, must these obligations now held by these institutions be paid, and the whole business of the country which has grown up under a system most conducive to the prosperity of the people be disturbed to such an extent that no one can foretell how seriously destructive its consequences will be. If Judge Kelley's calculation is realized, then it is inevitable that five hundred millions of invested capital are within six months to be drawn from their present employments and forced into new channels; and, if in six months so large a sum is to flow into the treasury, how long will it be before that treasury will be the maelstrom in which the whole capital of the country will centre?

The question may well be asked, if, as it is claimed by some that our present troubles arise from the abstraction from the currency of four millions a month for eleven months, or about five per cent. of its whole volume, what would be the consequences to the industries of the country by the transfer within six months of five hundred millions of capital from its present occupations at home to a foreign land for the payment there of the bonds of the United States? and this is one of the great purposes of the plan.

There is another view of the subject which ought not to be disregarded. Whilst things work smoothly those who operate largely

with the money of other people find their occupation agreeable ; but when the current changes and an ebb sets out, consternation is substituted for satisfaction, and despair becomes the bankrupt's companion. The first six months the government deposit may reach five hundred millions, the second it may be swollen to one thousand millions, then seven hundred and fifty millions will have been invested in government five and six per cent. loans, at constantly increasing prices, and the market will supply no more. The inward flow of deposits having reached its climax, the outward flow begins, the reserve is exhausted, the purchased loans have been cancelled, and for seven hundred and fifty millions of 3.65 bonds no means of redemption remain. This is a possibility. And why should the functions of the government be expanded to such an extent as to hazard the welfare of the people and the honor of the nation? Simplicity was the aim of its founders, and the protection of person and property their chief end. Departures from this simplicity should be confined within the narrowest limits, and are only to be justified when connected with the well-being of the nation. What is now proposed is the creation of a new department, endowed with the broadest powers, compassing a large part of the moneyed capital of the country and the creation of evidences of debt equal to it; not confined to the seat of government nor to the leading commercial cities, but with an ubiquity only limited by the existing offices of the Assistant Treasurers of the United States. It is the establishment by the government of a deposit bank, as a department of the Treasury, with innumerable branches. Besides all this, it will swell enormously the army of office holders, who are already so great a cost to the people, and who interfere so seriously with the proper exercise of their rights; it will also directly invade the domain of a legitimate business which gives occupation to a large body of most excellent and enterprising citizens.

I cannot leave the present branch of the subject without suggesting that probably this movement is intended as the first step towards the overthrow of the banking system of the country. It has for a long while been the practice on the part of some of the advocates of the plan now under consideration to urge that the banking system is that which most promotes inflation, and the favorite example of it adduced is "The London and County Banking Co.," which, with a capital and reserve of nine millions, loaned one hundred millions, and

held twenty-two and a half millions in cash and public securities. Its deposits at that time were one hundred millions. Certainly its business was large, and the confidence in its management must have been great. On an analysis of its available means, however, it seems to have had about twenty-five per cent. of its deposits in that shape, and the principle governed it which Judge Kelley's bill applies to the United States Treasury, that its so-called reserve shall always equal one-fourth of its obligations. It used to be thought true that he who made two blades of grass to grow where one previously grew was a public benefactor, and it is now only about to be found out that the process which gives to capital double use and extracts from it the principle of idleness is the cause of all our demoralization. In large cities the concentration of capital in institutions of good repute is not remarkable. The bank alluded to issues no circulation, but it does make the means entrusted to it as active as possible, but no more active than the plan under consideration requires that the Treasury should make the deposits committed to it.

The third question is one of great moment. Is it wise for the government to absorb the active capital of the country, that on which the farmer, the mechanic, the manufacturer and the merchant now depend to facilitate their daily transactions, to the extent of five hundred millions of dollars in six months, that it may be converted into gold, transferred to Europe, and there exchanged for bonds of the United States? It will be remembered that bonds can not be brought home from Europe except in exchange for gold or its equivalent. Judge Kelley says this process "would relieve us of that amount of debt abroad which so curses us." A curse more intense will follow the act which takes so much capital from our own people who need it, who cannot continue producers without it, who in being deprived of it would be ruined or crippled, and send it abroad to the present holders of the debt who desire to hold it at a low interest, and cannot be compelled to take the principal excepting on their own terms. Which is the greater curse to a young and vigorous country, where capital is needed for the development of its resources, to send away five hundred millions in gold at once, or to send two-and-a-half per cent. on that amount semi-annually? The advocates of such a policy cannot be familiar with the condition and movements of capital in the community in which they live. At this moment capital may be inactive, but it is not in excess. Large sums are

continually sought for, and almost invariably they are obtained abroad. Could this suggested operation be carried out without serious disturbance at home, which is a vain thought, the vacuum produced here would be filled by the negotiation abroad of loans of less repute and bearing a higher interest; and the most favorable result that could be hoped for would be a larger amount of foreign indebtedness, by the difference in value of the security, at a higher rate of annual interest. The depletion, which it was proposed to stop, must be seriously aggravated.

A foreign debt under our present circumstances is merely a proof that capital is more valuable to us than to those who hold our obligations; and when the country can from its increased wealth pay off its foreign debt it will be wise to do so; but at this moment no other than a legitimate process can effect that desirable purpose to the advantage of the country. Our savings and our earnings are the reliable means. Let us look to them. "It would be," said Mr. Young, of the Bureau of Statistics, "of particular advantage if the greater proportion of our public debt was held in this country, and thus prevent the continual drain of gold to pay the interest." How much in sympathy with this philosophical reflection are many whose pockets are not equal to the demands upon them?

Connected with this proposition there is a delusion, which even its advocates may not be aware of. The thought presented for public consideration is that the government would become a borrower at the rate of 3.65 per annum, and with the money extinguish its existing indebtedness bearing five and six per cent. interest, and thus profit largely. Let us examine if it be so. The rate of interest to be paid is 3.65 on 100, but of that 100 one-fourth becomes a reserve; therefore, 3.65 is paid for the use of 75, and the interest becomes 4.86 $\frac{2}{3}$, and this is without any allowance for the very large cost which would be incurred in carrying the plan out in all its details.⁵ The loans which are now being negotiated are had on more favorable terms.

The conclusions which this examination has brought me to are that the low rate of interest becomes a full rate; inflation is a necessary consequence; the invested capital of this country is to be violently disturbed and its industries deranged;—and all this that our

⁵ N. B.—This feature is treated from another standpoint by Mr. Knox, Controller of the Currency, in his able report of November 29, 1875. See page 20.

foreign debts may be increased and the annual outflow of interest in gold be materially enlarged. I believe these conclusions to have been reached without prejudice, and they are not such as the advocates of the scheme have presented for the public ear. When I reflect upon them they do not seem to me to admit of a doubt, and why the serious consequences involved in it are not apparent to them is one among the many mysteries of the present day.

THE GOLD STATEMENT CORRECTED.

SEVERAL reports recently called for by Congress have been made public relative to the condition of the United States Treasury, and to the balance or reserve of coin and bullion, gold and silver, which is stated as being held at the several dates for which statements are made public. Of these statements there are the following made public regularly: First, the daily telegraphic statement given at the Treasury Department to the Associated Press, and published in the financial column of the daily journals at New York. Next the monthly debt statement made up at the close of the last business day of each month, and printed on a slip at the Treasury for distribution, from which it is taken for telegraphic despatch to all the papers on the first day of each month. Lastly, the annual report of the Secretary of the Treasury and the United States Treasurer at Washington, printed with the Secretary's report in the finance report for each year. This gives the state of the Treasury on the closing day of the fiscal year. Perhaps it should be said that in addition to these the Assistant Treasurer at New York gives to the press the statement of the condition of that office at the close of each business day.

Of the special reports of the condition of the Treasury called for by Congress, two have been made, under date respectively of January 25th and February 24th. In one case the account was stated of the items held and "counted as cash" at the several mints and depositories on January 25th; the other and later statement was of the gold, silver or other items of coin or specie balance belonging to the United States. These statements, so far as they have been made public, are as follows:

The Secretary of the Treasury sent to the House of Representatives to-day, in response to the resolution of January 31, a detailed statement showing the actual amount of cash on hand in the Treasury, the several depositories and mints. The account is as follows:

Minor Coins.....	\$ 74,762 17
Fractional currency	8,755,655 44
National bank notes.....	5,123,730 41

Legal tender notes held on special deposit for the payment of certificates of deposit issued under sections 5,193 and 5,194 of the Revised Statutes, and for the redemption of notes of the national banks failed and in liquidation, and for reducing the circulation.....

Other legal tender notes.....	59,750,756 75
Gold coin.....	17,608,684 26
Gold bullion.....	44,659,128 42
Silver coin.....	10,254,409 59
Silver bullion.....	11,202,258 60
Called bonds and interest thereon.....	4,146,932 67
Gold notes and certificates.....	11,311,695 65
do. coupons.....	8,787,761 00
Checks funded loan of 1881.....	7,007,325 56
Registered interest.....	63,543 68
Exchange drafts.....	582,508 50
One and two years' notes.....	350,500 00
Redeemed certificates.....	5,837 33
Vouchers speakers' certificates.....	70,000 00
Metal fund, in mint currency.....	156,475 00
Unavailable.....	50,000 00
	816,078 38

Total.....\$ 190,778,043 00

The Secretary says that this amount does not include any money in transit, nor is the amount of Treasury debts, outstanding at that time, taken into consideration. The amount of money in bank depositories at the close of business hours on the 22d of January (the latest date that could be reached) was \$10,140,611 61.

The second statement, made to represent the state of the Treasury on Feb. 24, is as follows:

The resolution of Mr. Saylor, calling for a statement of the component parts of the coin balance of the Treasury, has brought out the following report as showing the condition of the items on Feb. 24th:

Total amount of coin.....\$ 91,987,023 17

From which there is to be deducted:

1. Coin coupons.....	\$1,547,462 06
2. Demand notes.....	10 00
3. Coin certificates.....	1,427,200 00
4. Sinking Fund and interest.....	1,873,825 50
5. Bonds redeemed and interest.....	13,832,553 65
6. Interest due and unpaid.....	9,254,634 50
7. Outstanding bonds called for Sinking Fund..	2,548,000 00
8. Outstanding coin certificates.....	33,968,300 00
9. Silver coin and bullion.....	14,193,618 70
	78,645,604 41
10. Leaving as owned by the Government.....	\$13,341,423 76

To these it would be proper to add :

¹“ The following table shows the amount of gold held by the Government on the 1st instant (March) as exhibited by the debt statement :

Amount reported as coin.....	\$70,035,772.73
Coin certificates.....	\$31,925,000.00
Interest due and unpaid.....	11,517,355.86
Called bonds.....	17,321,400.00
Interest on called bonds.....	325,341.55
	<u>\$62,079,097.41</u>

Total coin owned by the Treasury\$7,956,675.32

“ We have made no deduction of the accrued interest to date, from the amount reported as coin, as only \$4,864,167.50 were due and payable on the 1st. Subtracting this amount would leave \$3,092,517.82. The \$15,349,191 of silver coin and bullion held in the Treasury for the purposes of resumption are included in the amount above reported as coin.”

To understand these statements, and those of the monthly debt report and daily balance, it must be borne in mind that the accounts of the several sub-treasuries and U. S. depositories are kept as if each was independent of and separate from the central office at Washington, and that the general report of the state of the Treasury is a summary of these several reports, without the intervention of any clearing of balances among them. Whatever is sent to any one of these offices from Washington having the character or quality of money in the uses of the office to which it is sent, is charged against that office, and is carried on its books and in its reports as money. In this way unissued gold certificates, varying in amount from seven to eleven millions of dollars, are held at the New York sub-treasury, appearing in its daily reports as part of the coin balance. A smaller amount is held at other sub-treasuries in the same manner. On Jan. 25 last the sum of \$8,787,761 in gold certificates was held by the several sub-treasuries, and formed a part of the seventy millions of “coin” reported from Washington as being in the Treasury on that day. On June 30, 1875, the amount reported as being at the N. Y. depository unissued was \$6,490,700; and at the same time \$161,400,000 of these certificates was held in reserve at Washington ready for use; not, however, appearing in the “coin” statement, though necessarily so appearing for all that was transmitted to New York.

All forms of gold indebtedness in bonds or coupons deposited with or held by any one of these depositories after payment, must also be held and counted as “coin” until the account in each case

¹ *N. Y. Journal of Commerce*, March 3, 1876.

is completely settled, and the Treasurer, who is responsible for the payment or the proper return to Washington of the evidence of payment, receives his warrant of reimbursement or other form of acknowledgment releasing him and cancelling the charge of the general Treasury against the office at which payment was made. When gold certificates in process of cancellation, which have been presented at the New York office, and the gold drawn for export, are either temporarily held by that office, or transmitted to Washington for complete cancellation, they are held as gold, and reported among the gold payments when sent.

Being in every respect, so far as the accounts of the office are concerned, the equivalents of gold, they are not distinguished from, but always included in the gold account, and of course form a part of the gold balance.

The "gold balance" at New York has varied little for a long time; it stands at from forty-four to forty-seven millions generally. On January 25 last, it was reported as \$47,143,529, and the aggregate of all the sub-treasury and mint balances footed up a total, as officially reported, of \$73,584,346 on that day. But in this aggregate, and chiefly at New York, there were the following items, merely held to be accounted for :

1. Gold certificates.....	\$8,787,761
2. Gold coupons.....	7,007,325
3. Called bonds and interest thereon.....	11,311,695
4. Redeemed certificates.....	70,000
	<hr/>
	\$27,176,781

Again, on February 24, the amounts of the various "coin" items of this character were reported as follows :

Coin coupons.....	\$ 1,547,462
Coin certificates.....	1,427,200
Sinking fund and interest	1,873,825
Bonds redeemed and interest	13,832,553
	<hr/>
	\$18,681,040

There is an omission evident here to report the gold certificates on hand, which amount, if taken at the same as on January 25, would make up \$27,468,801, or nearly the same sum as that represented on January 25th.

The first step in correcting the gold statement is, therefore, to eliminate what now stands at an average of twenty-seven millions, which is not gold in fact, but merely a form of keeping the accounts

of the subordinate office with the central office at Washington. No one of these items is either debt or credit in the account of the Treasury with the people. The coupons paid and bonds redeemed, and coin certificates cancelled, are all merely paid bills—the gold certificates are gold checks signed ready for issue.

The next feature of the statement is the account of gold debts due and unpaid, all of which constitute a demand charge against the gold in the Treasury. By the official statement of February 24, these items are as follows:

Interest due and unpaid.....	\$9,254,634
Outstanding bonds called for sinking fund.....	2,548,000
Outstanding gold certificates.....	33,968,300
Total.....	\$45,770,934

But on March 1st the monthly debt statement¹ gives these items as follows:

Interest due and unpaid.....	\$11,517,355
Called bonds.....	17,321,400
Interest on do.....	325,341
Coin certificates.....	32,925,000
Total.....	\$62,089,096

The discrepancy in this case is not easy to explain, since the several calls of bonds for the syndicate and sinking fund matured on or before February 15th. The difference is evidently in the account of called bonds for the syndicate, which were not included, as they should have been, in the statement of February 24. It appears that of the several calls for the syndicate a large amount was still unpaid on March 1st, though interest had ceased from February 15th—perhaps fifteen millions in all; and this sum, with a large amount of gold interest then due, will throw heavy demands on the Treasury for many days. And in addition to these items a further sum of \$4,864,157 of interest had fully matured on March 1st. The result is that the immediate gold liabilities are, or were on March 1st:

Interest on bonds to March 1.....	\$29,164,096
Additional fell due March 1.....	4,864,157
	\$34,028,253
Add outstanding gold checks or certificates.....	32,925,000
Total liabilities.....	\$66,953,253

Of this sum, however, the Treasury can carry thirty to thirty-five

¹*N. Y. Journal of Commerce*, March 3d.

millions by renewed issues of gold certificates, but it cannot protect the reserve of actual gold by their issue. The Treasury has resumed specie payments, so far as these are concerned, and it must meet any sum of them that may be presented to draw gold for export with the coin itself. They will pay interest and called bonds at home, but for payments on accounts of foreign holders the coin must go, if exchange in some other form cannot be obtained. It is clear that the large amount of these certificates out, now over thirty-five millions, would render the keeping of a gold balance impossible, if the revenues are deficient and no new bonds are going out. The debt may be necessarily increased as the only alternative to save the coin.

In the several statements of coin balance reported as for the general treasury, the silver coin and bullion owned by the government appear at full value. This amount, a little more than fifteen millions, is however wholly unavailable as gold or the equivalent of gold. No form of bonds or of interest payable can be met by the use of silver in any form. The amount should therefore be subtracted from the coin balance, and put with the fractional currency, where it belongs. From the total of "coin balance," say of March 1st, the deductions therefore are:

"Coin balance" March 1st.....	\$70,035,772
Less silver.....	\$15,349,191
Less amt. of immediate demand for int. and called bonds	34,028,253
Less outstanding certificates.....	32,925,000
	<hr/>
	\$82,302,444
Deficit.....	\$12,266,672

In the above calculation no account is taken of the several sums accounted for as gold merely through book-keeping forms, or as responsibilities on the part of the subordinate offices to the central office at Washington, or credits held by them against that office. It is scarcely possible that the statements of February 24, of "bonds redeemed and interest thereon, \$13,832,553.65," should constitute a part of the "coin balance" while on March 1st there should have been an additional amount of "called bonds, \$17,321,400," due and unpaid. If so, however, the whole of the book keeping sort of gold appearing as by the statement before made, derived from the official report of January 25th, at the sum of \$27,176,781, would be added to the gold deficit. It is probable that at least a part of the \$17,636,710 of called bonds and interest reported as "called bonds" on March 1st, had then been paid at the New York office, and were

held as being coin to that office, though no more than cancelled paper to the general treasury. Excluding this item altogether there would still be, to be further taken from the coin balance of \$70,035,772, any amount of coupons paid and gold certificates which might be held by that office after being redeemed but not cancelled, and any amount of gold certificates unissued, to be added to this deficit, or rather to be first taken from the sum of seventy millions before the other deductions are made. The result is the same, however, to add to the deficit just calculated the sum of the items number 1, 2 and 4 of the statement first given in this paper :

Gold deficit as above.....	\$12,266,672
Gold of account.....	15,857,761
Total.....	\$28,124,433

If to this be added one half of the sum of \$13,832,553, before stated as in doubt, the entire deficit reaches nearly \$35,000,000.

Against this we have as assets, the unavailable (as gold) \$15,349,191 of silver coin and bullion, and whatever resources the issue of thirty-five millions of gold certificates may afford. But these avail nothing to protect the actual gold, as we have shown.

Next are the slowly accruing gold receipts. Of the receipts from customs about one-twentieth only is gold in fact; nineteen-twentieths are gold certificates. At New York, from January 1 to March 10th, 1876, the receipts for duties accruing at that port were :

Gold certificates.....	\$19,877,216
Gold in fact.....	1,035,000
Total.....	\$20,912,216

At other ports a larger proportion of gold is received, but the transfers of actual gold from other ports to New York would not reach five millions in the two and a half months as from custom receipts. The New York customs do not yield gold in any great amount. Half a million a month, or six millions a year is all. Their yield of certificates is abundant enough to pay interest and bonds redeemed or held by American owners; but not if the proceeds of such demands must go abroad.

The banks of New York held on March 11, \$23,139,800 in "specie," of which about one million only was gold—the balance being gold certificates. Clearly the banks are not in condition to supply a drain for gold, and as the certificates are not payable by

them, their reserve of "coin" is immovable. The withdrawal of gold for export is from the United States Treasury at New York exclusively, and it is effected by the presentation of certificates, which in that case must be redeemed in actual gold coin. W. B.

THE ART OF ENGLISH COMPOSITION.—II.¹

HAVING examined in a former paper the course of instruction in English pursued in the preparatory school, we turn now to the college-course, to see whether the last four years of training differ in this respect from the earlier period. If they do not, we need wonder but little that the gross defects which have been noticed in our young men of education, should exist to the degree alleged; if they do, we shall still find but little difficulty in comprehending why the results achieved by the more worthy course should be so meagre, since the more solid and substantial the later course is made, the more impossible is it for a weak foundation to support it.

The curriculum at college embraces generally Rhetoric, Logic,² Philology, and the History of English Literature, with exercises in both Composition and Declamation. The character of the instruction varies, of course, in accordance with the learning of the professor, his capacity to impart knowledge, and the range of the topics which he selects for presentation to the class. But, at its worst, this

¹*The Art of Discourse*, H. N. Day, N. Y., 1874.

The Philology of the Human Tongue, John Earle, M. A., (2d edition), Oxford, 1873. (1st edition, 1871)

The English of Shakespeare, George L. Craik, London, 1864. (1st edition, 1859.)

Shakespeare's Comedy of the Merchant of Venice, with notes by William J. Rolfe, A. M., N. Y. 1872. (Other plays edited by Mr. Rolfe are *The Tempest*, *Henry VIII.*, etc.)

²I consider Formal Logic a part of the course in Composition, if only because thought is an essential element of discourse. I do not suppose, however, that it is necessarily the duty of the professor of English to teach Logic. On the contrary, the subject is much more properly treated as a part of Metaphysics, and may, therefore, be assumed in the English course, unless not taught in the other department.

course of worthy studies must confer upon all who participate in it some measure of ability to write and speak. The recitations alone, if not "in the words of the book," give each student some practice in Composition; so that it seems impossible for any one, to whom the diploma ought to be given as a sign of other attainments, to graduate wholly ignorant of the principles, or unskilled in the art, of Oratory.³ He may have acquired but little knowledge and less skill; he may feel his deficiencies so keenly as to be utterly discouraged from endeavor; nay, we have seen he may exhibit such defects as to draw upon himself both hostile criticism and devilish temptations; but, unless he be an idiot, he may surely enter far enough into both the form and the spirit of the bright examples of literature which he has abundant chance to study, to be able to say in decent form, at least, anything that he has the power to think. Why, then, do we hear such allegations of his incapacity? Again it must be answered, that the circumstances of the course, and not the studies which compose it, are at fault. Again it will be our task to discover, if we can, what these circumstances are.

And (1st) most prominent among the causes of this failure is the defective preparation of candidates for admission. The reasons for this defective preparation we have already considered. It is again referred to here only because we must mark its disastrous consequences upon the boy in college.⁴ These consequences are much

³Every professor in college, every teacher at school, who insists upon an intelligent, clear, idiomatic recitation, is teaching Composition. Of course, the special training alone secures the best results, just as especial devotion to Anatomy and Surgery, rather than to Physiology and Medicine, makes the best surgeon. I shall not ask for the English of the college course anything more than was claimed for the English at school—fair play.

⁴The colleges are often blamed for not examining with greater strictness and thus securing a higher standard of scholarship. But to say nothing of the great difficulty of ascertaining by examination exactly what a student knows, we need only ask these critics to remember that the college must never make the gap between itself and the schools too wide, unless it is ready to live without students. Under favorable circumstances, it may encourage a higher standard in the schools; but, unless it can secure the attainment of this higher standard, it will "condition" or reject in vain. The demand for accomplishments which the schools are really unable to supply is like the bachelor's remedy for no bread—toast. The school and college must work together, the latter advancing only by steps so reasonable that the former can easily follow.

more widely felt than is commonly supposed, and, perhaps, cannot be wholly remedied in college. Certainly a moderate amount of elementary knowledge must be assumed as a basis for the later work, or be left to the student's own diligence, if it has not been previously acquired. To see how mischievously this want of preparation works, let us follow the newly-entered Freshman.

The professor assigns a subject for Composition, and, perhaps, suggests a mode of treatment. He recommends the standard writers, or even names a few of the sources of original information. Leaving an interval of time for careful study and writing, he waits in the hope that some of the essays, at least, will repay his labor of reading and correcting. But with what results? A mass of crude material, utterly undigested by the writers, (the product of their capacity to paraphrase, not at all of their power to think,) is handed to him, a sign at once of failure. The demand for discourse was like Pharaoh's order to the Children of Israel; the reply an equally indignant protest against the requiring of impossibilities. What shall the instructor say to earnest, honest men who tell him, "We never wrote a composition in all our lives?" Shall he reply, "Ye are idle, ye are idle. Go, therefore, now and look; for there shall no straw be given you, yet shall ye deliver the tale of bricks?" He may, indeed, threaten thus; nay, the whole learned Faculty may sit in judgment; but neither they nor he will attain the desired result. The rank and file of the class must be "let go." Indeed, only too often the professor would gladly "drive them out of his land."

Through the other subjects of the course, also, this hindrance of defective early training may be noted. It does not need the genius of a Pestalozzi to declare "the important bearing which the elements of every branch of knowledge have upon its complete outline, and what immense deficiencies in the final result must arise from the confusion and imperfection of the simplest beginnings."⁵ Yet Rhetoric must be taught to students whose actual knowledge of Grammar is almost none; who define a noun by a verb, a verb by an adverb; who have never learned to think; and who find the expression in language of even another's thoughts a work of supreme difficulty. Philology must be presented to young men who have never thought of *preface* as a composite word, or of *action* as having a suffix which contributes to its meaning. Think of Grimm's

⁵ Pestalozzi, as quoted in Krusi's *Life*, Penn Monthly for January, 1876.

law as food for babes in Etymology! Try to make the identity of English *tear* and Latin *lacryma* appear plainly to one who has never heard of Derivation! Similarly, Literature, the happy play-ground of an intelligent boy, becomes a slavish work-bench to one in whom the literary *sense* still lies dormant. Well may the cry go up for reform in the English course at school.

But (2d) defective preparation is not the only cause of the evil we are considering. We shall find defects in the college course, as well. Here, as at school, the student is allowed to lose sight of the underlying unity of the course. The several subjects are often necessarily entrusted to as many different professors, and their connection and interdependence thus put out of sight. The clearer-headed "fellows" will see the thread which guides their footsteps, which binds the laws of thought and the history of a language to the principles which underlie the construction of discourse and the exemplification of these principles in literary products; but "the masses" will accept the partition-walls between the rooms as dividing-lines between the subjects, and count the number of their attainments as they do the professors' names in the college-catalogue. English studies they know, but not the study of English.

The remedy for this misconception of the course of study lies mainly in the hands of the teacher of composition. He can guide the students to a full understanding of the unity of the course, by pointing out the relations of its several members. He is generally the professor of Rhetoric, also, and has thus repeated opportunities of enforcing upon his students their need not only of the principles and rules of Rhetoric, but of disciplined thought, of an accurate knowledge of words, in both their older and their present forms, of some understanding, at least, of the scientific basis of language, and above all, of an intimate acquaintance with the literature of our tongue. He can point them to Bacon's famous saying: "Reading maketh a full man, conference a ready man, and writing an exact man;" can show them how no science of *Æsthetics* can open their minds to the subtle beauties of words, much less to those of whole compositions; how, in a word, the cultivation of the *ars dicendi* involves the culture of the whole spiritual nature—intellect, feelings, will.⁶

⁶ The *speaker*, and, to a less extent, the writer will feel the necessity of physical development, also.

(3d) A narrower inspection of the usual college-course will find, it is greatly to be feared, weak places in both the matter taught and the methods of teaching. Reserving the Rhetoric, as (for the purposes of this discussion) the most important, let us glance at the others in the order in which they were named above.

Logic, the science of thought, was defined by the older logicians as the science of reasoning, and is still restricted thus by many writers and thinkers, although years have passed since Sir William Hamilton first "quantified the predicate"—or rather, insisted upon the recognition of the quantified predicate of ordinary speech—and although in Germany a breadth and depth have been discovered for the science that justify the most liberal conception of the subject. It may seem presumptuous, perhaps, for the writer of this paper to criticize the teaching of Logic; but it will hardly be over-rash in him to suggest that even the science of thought can become a barren study, instead of a fruitful source of mental power and growth; that the lesson in logic may even be committed to memory, like the proof of a geometrical proposition; and that only a system of close examination will expose the pretences of a student who covers the nakedness of his thought with a cloud of words.

Philology, the youngest of the sciences, is certainly not so petted as the baby of a household is traditionally supposed to be. She rather holds the place of a younger sister kept back, lest the chances of her elder sisters' having suitors be impaired. Thus the earliest "Webster" derived Greek from Hebrew—a mistake by no means wonderful in 1828, when the Science of Language can hardly be said to have existed. A noted historian of Rome, writing only in the last generation, fell into the blunder (as we now see it) of supposing Latin largely a derivative of Greek. Perhaps, it is only in our own day that dialects have been seen to be, not corruptions, but merely varying forms, of the common speech, of which the literary mode is only another dialect. Indeed, the editors of certain English magazines—"the old ladies who edit," as they have been aptly called—have yet to learn that many so-called "Americanisms" are simply forms preserved by Puritan Bible-reading from the times of Elizabeth, but now forgotten by the literary English in England.

It is, hence, but little strange that the study of English in this particular is only too much neglected. A daring few—all honor to them!—have proclaimed the study of Chaucer or Shakespeare by

the same method as that pursued in the study of Sophocles or Horace, Racine or Goethe; and have actually introduced this course into the colleges they represent. But the English course is in many places so encroached upon by the Classics and Mathematics, that the very name Philology is never heard. Even where attempts are made to put the philological methods before the classes, the professor is often contented with an unsystematic study of words in their earliest significations, or with a bare outline of the history of our tongue as exemplified in the many changes in its vocabulary. That all these *phenomena*—as they really are—furnish the basis of an inductive science, English Philology; and that, combined with similar facts observed in other languages, they supply the foundation of Comparative Philology, the Science of languages;—these truly philological “items” never reach the student. Trench, Grant White, De Vere, all worthy authors in their places, absorb attention from names like Latham and Marsh, Heyse, Curtius and Müller.

Indeed, until lately, the professor who has reconciled himself to this feeble presentation of his subject, has had an almost valid excuse for his course. The books which he has needed for his own studies were expensive and (strange to say) not to be found in our public libraries, even in the large cities. College-libraries are often sadly restricted in purchasing by want of proper endowments, and college-professors for want of proper salaries. Even with the books for himself, he was unable to find a suitable book for his class. Latham's *Hand-Book* and other works, whatever else was true of them, were unsuited to the needs of Sophomores; Marsh's Lectures, attractive in style, interesting in matter, and scholar-like in execution, treated desultorily a series of isolated subjects, rather than constituted a system of English Philology. Müller was too advanced for beginners, and Whitney's *Language and the Study of Language* a work for Seniors or post-graduates. No single work,¹ at all adapted to the instruction of a class, presented the facts of our language in such combination with the principles of language as would give the student a reasonable knowledge of both. The professor was forced to lecture, although he knew how unimpressive a lecture must neces-

¹ I speak, of course, within the limits of my own knowledge, after diligent search and careful examination of everything I could find.

sarily be to the younger classes in college and upon a subject that admits of no experiments.

It must, therefore, have been with feelings of unmixed gratification, that the professor so circumstanced met for the first time the text-book of English Philology here named for review. Earle's *Philology of the English Tongue* is a careful examination of the facts of our language with regard to both their origin and development and their essential nature. Though it is avowedly a study not of the principles, but of the elements, of language, and of one language, rather than of many, yet it introduces "the principles in an occasional and incidental manner, just as they happen to be called for," [Preface to First Edition,] and incessantly compares English words and constructions with those of other tongues. By this method, Mr. Earle justly remarks "the complete and compact view of principles as a whole will be deferred until such time as the learner shall have reached them severally by means of facts which lie within his own experience." And certainly no better plan could easily be devised than this which finds "a path through most familiar ground." In execution, also, as well as in plan, the work will be found worthy of praise. Clear in style, most English in diction, and modest in spirit, it advances steadily through its long array of topics. If it has one fault, it is that whole paragraphs which are filled only with examples, are not printed, as actual quotations are, in a smaller type, so as to be easily distinguishable. (Cf., e. g., Secs. 111, 112, 117, with 364, 365, 369.) Indeed, a judicious condensation which would discriminate clearly between the proper text and examples, illustrations and explanations, is the only amendment that seems at all desirable. The work appears to have grown piece by piece, each stored in its own "pigeon-hole," until all were collected under a systematic arrangement and rigidly logical classification. Perhaps it will be best used by being made the basis of a course of lectures, a constant reference from which to the examples given by Mr. Earle would be like the turning of the lecturer on Physics to his apparatus.

From "Earle" the course should immediately advance to practical Philology—the study of an English classic. And here, most fortunately, the means are ready to our hands. Craik's *English of Shakespeare*, a commentary on the *Julius Cæsar*, is the work of a scholar whose *English Language and Literature*, (published two

years after the first edition of the Commentary,) has made him even better known. It is, perhaps, the best introduction to Shakespeare that can be found in English, and an equally satisfactory means of approaching the whole body of our literature before Milton. With no other help than this single volume, the student will pursue profitably the study of this one play: with the Commentary, one or two complete editions of Shakespeare—the *Variorum* of 1821 and Dyce or Knight, for example—Nares' *Glossary*, Walker's *Criticisms on Shakespeare*, and Mrs. Clarke's *Concordance*, he will find himself equipped with at least all the necessary means of mastering all the poet's works. If he want more help, he will find a list of the "Shakespearian editors and commentators" in Professor Craik's *Prolegomena*, IV.⁸ To be more explicit, however, the subjects treated in both the Prolegomena and the Commentary are just those topics concerning either the poet or our language on which the man of education needs to be informed, and in which, therefore, the college-student needs to be instructed. The personal history of the poet, his works, the sources of the text of his plays, the mechanism of English verse and the prosody of the plays of Shakespeare, with a mass of verbal criticisms, etymological remarks, discussions of whole sentences, and citations of parallel or illustrative passages from both Shakespeare and other authors—these are the subjects to which the volume (a *post-octavo* of 350 pp.) introduces the reader. Surely were this the only "help" our teachers of higher English had, the apathy of so many of them would be inexcusable.⁹ For those who prefer a smaller book, or whose time is limited, Mr. Rolfe's editions of the single plays will also serve the purpose of instruction. Indeed, it is only for these purposes that they were written. Briefer and less pretentious than "*The English of Shakespeare*," they resemble very closely the *Oxford Pocket Classics*, with

⁸ To these must be added some works that have been published since 1863—notably Mr. H. H. Furness' Editions (with *Variorum* notes) of *Macbeth* and *Romeo and Juliet*, Mrs. Furness' *Concordance to the Sonnets*, and Schmidt's *Lexicon*.

⁹ An American edition of this work, edited by the same Mr. Rolfe, who has prepared the volumes next to be mentioned, is highly praised by Professor F. J. Child, of Harvard, as having "received many improvements from Mr. Rolfe," and as "one of the only two or three books which are both fit to be used, and within the means of students."

Short Notes. They propose either a less extended course of study or a more diligent use of other editions. They are intended for high schools and in preparation for college, rather than for the college classes. But when the time allowed for practical Philology is very short, Mr. Rolfe's books may be used and their omissions supplied by lectures—informal and extemporaneous, of course.

A last step, by which the course would reach Comparative Philology, or the Science of Language, will not always be possible within four years. If, however, the subject can be taken up, either Müller or Whitney will serve as text book. The lucid style and enthusiastic manner of the former writer, stand in marked contrast with the more involved diction and the monotonous, as well as dictatorial and polemical, manner of the latter. *To Language and the Study of Language*, however, must be given the credit of being a systematic and complete treatise, while Müller's *Lectures* are rather a collection of essays upon a number of subjects very closely related. (This is especially true of the second series.) In correctness of opinion, the latter writer recommends himself, perhaps, to our better judgment; yet Professor Whitney suggests most valid doubts as to some of the conclusions which the Oxford professor has reached, and which he seems to have drawn by the help of that "poetic vision" remarked by him as a crowning endowment of the proposer of the name Indo-Germanic—Frederick Schlegel.¹⁰

The third department of the study of English in college, the history of our literature, ought to prove a means of culture difficult to over-estimate. The bare facts that certain authors wrote certain works, that these authors lived at certain times, and that their works were published in certain years, have, of course, but little value, except as information. But the relation of each author to his times and other surrounding circumstances, the connection of each succeeding literary period with its predecessors, the individuality of the several writers, and their classification into groups with various *differentiæ*—these things both discipline the mind and promote culture.¹¹ In other words, an adequate course of English Literature

¹⁰ Müller, I, Lect. IV., *ad fin.*

¹¹ I know that I am writing truths *παλαιὰ καὶ λίαν προωμολογημένα*, [*Æschines, Contra Ctesiphontem*, § 53,] but the average text-book will not convict me of the offense.

must be a philosophical history (of which no part can be omitted without loss), as well as a critical analysis of the material presented in the history. But is this generally the character of the instruction? Is the usual text-book of English Literature at all modeled on this plan? Is it not too often an attempt like that of "the man who wrote an account of the camel without even having seen the animal or a desert?" (Müller, Lecture III., *in init.*). It is at least true that the student is often expected to gain a satisfactory knowledge of an author without having ever seen any sufficient portion of his works. Why may a writer not be actually *presented* to a student through a lengthy extract from his works, or (better yet) through an entire work, however short? By this means, the whole lesson of the English course could readily be summed up, and Rhetoric, Logic, Philology, and Literature, reduced to practice, all be taught at once and in actual models.¹²

The most important study of the course, and generally the first in order of time, is Rhetoric, including exercises in Composition and Declamation. Like practical Logic, however, it is the victim of the grossest misunderstanding, or, perhaps, of misrepresentation. Even professed teachers of the subject often strangely misconceive the true scope of their art, and give to their instruction a bias which proves fatal to the achievement of its proper ends. For example, (1st,) Rhetoric is constantly thought of as only a critical, not a developing art. The power to speak, it is said, is universal in our race; therefore, the only office of Rhetoric is to guide a man in the employment of this power—to stand by (as it were) to receive the literary product of a man's mind and shape it into comeliness. In this view, the total depravity of man pervades his mental efforts, and renders an intellectual director necessary for him. Or, (at once to

¹² I am not unaware that the plan here indicated is followed, at least in its essential features, in several colleges. Nor am I insensible to the difficulties which surround its carrying out. The greatest of these, of course, is the securing of a large number of copies of the texts which it is desired to place before the class, except by the purchase of many different books at great expense. Collections of specimens are extant which illustrate several periods of our literature—Warton, Marsh (Lectures, 2d Series), Cleveland's Compendiums. Taine's *History of English Literature* is more copiously supplied with extracts than any other work which has come under my notice. In the worst case, passages might be read to the class, and the commentary noted for future study of the authors.

change the figure and avoid forbidden ground,) the duty of the instructor in Rhetoric is like that of a dentist supervising the "coming in" of a child's second teeth—he must see, forsooth, that Nature conduct the operation according to mechanical ideas of regularity. The teachers who hold this doctrine no more dream of addressing their efforts to the faculty of discourse itself, than the merely mechanical dentist dreams of interfering with a second tooth that is still hidden below its predecessor in the same socket. They forget the lesson that a wise physiology teaches, that what the dentist cannot do directly, he may do indirectly, by securing for the child good, nourishing food, which day by day will strengthen the teeth that are still buried in the jaw, instead of an improper diet that will render them more and more liable to decay the moment they escape the gums. Hence they openly allege that Rhetoric cannot supply the matter of thought, (*i. e.*, furnish the content of discourse,) and thus restrict the office of the study, till, like a limb cut off from exercise, it shrivels and shrinks into uselessness. How many a heart has cried bitterly at the close of a term in Rhetoric, "Alas! I had hoped for invigoration, but have learned only how to furbish thoughts which the study has given me no power to originate."

Nor is this view of Rhetoric *wholly* false. The laws of thought are taught by Logic; the objects of thought come from a thousand sources; Rhetoric most certainly begins to deal with these objects of thought only after they come within her province. There is a sense in which Rhetoric is truly a pruning, critical art. Style is undoubtedly a department of Rhetoric. Euphony, Harmony, Energy, Beauty of language do not "come by nature." The greatest orators the world has ever known have uniformly testified to the importance of cultivation in their art. Demosthenes is an example almost too trite to mention. Pinckney, Webster, and notably Legaré,¹² are other striking cases. We can never insist too strongly upon Horace's dictum,

"Sæpe stilum vertas, iterum quæ digna legi sint,
Scripturus." [Sat. I. X. 72.]

But let us also remember that this is not the only office of the art. To classify the kinds of discourse—Oratory, Poetry, History, etc—

¹² See the most interesting biography of Mr. Legaré prefixed to his sister's edition of his collected writings.

to show the several parts of any composition; to distinguish carefully between Explanation, Confirmation, Excitation, and Persuasion; to unfold the principles of Unity, Selection, Method, and Completeness; to define and exemplify Narration, Description, Division, and the other modes of setting an object distinctly before the mind; to classify the kinds of proofs:—these and other equally important tasks fall to the rhetorical art as necessary duties. In a word, Invention is a department of Rhetoric, as well as Style, and can be omitted from a view of the whole subject only at a dreadful sacrifice—that sacrifice, in fact, which has made our age so famous for words without sense, words high-sounding, graceful and faultless in every outward circumstance, but hollow, meaningless and utterly destitute of power to influence the minds addressed. Style may indeed be the *summum bonum* of a vapid dandy or of a girl at her first ball; but rational men and women cultivate nobler traits of heart and mind. How eagerly one turns from the perfect model of the tailor or the dressmaker, though it, too, be faultless in every outward circumstance, to minds that can stimulate our own by thoughtful speech. A want of exterior polish is pardoned in a man of talent, much more in a man of genius: on him who would nourish us with “froth” we pour unmixed contempt.

(2d) The instruction in Rhetoric is hampered by another fundamental error. Locke's famous sneer at Logic, God did not make man a two-legged animal, and leave it to Aristotle to make him rational, is repeated, and with emphasis, of Rhetoric. “The orator is born,” it is said, “and no man not a born orator need waste his time in studying principles.” In other words, “Rhetoric, like Poetry, is an attribute of genius. Therefore let him who feels the fine frenzy write.” The statement hardly needs refutation, but unfortunately has acquired a wide-spread influence, and done much mischief. Let us apply to it, therefore, one simple test, “The strength of an argument is no greater than that of its weakest link.” If a single case can be produced in which the skill in question was the product of continued application, rather than of natural forces bursting into action, the assertion is certainly false, at least as a universal judgment. Such a case can readily be adduced. Hugh Swinton Legaré, of Charleston, S. C., was an orator of national, nay, of European fame. Men of fifty years of age remember him well, although, in the confusion of our public life, he has been forgotten

or has remained unknown by younger men. Yet he was a dwarf, despoiled by inoculation with small-pox of his due proportion below the waist; was largely hindered by consequent weakness from physical exercise; was the companion of his mother and sisters, when he should have been gaining masculine vigor and inspiration among other boys; and was morbidly sensitive, and, at times, almost melancholy. His most constant companions were his books, more dearly beloved than all others except the mother to whom his affection was a noticeable trait. His favorite occupation was private study, his pet aversion society. Yet this remarkable man became not only deeply learned,¹⁴ but eminent as an orator of both grace and power. The victim of jealousies which hindered his rapid acquisition of practice, he nevertheless held public office as attorney in both his own State and the United States, winning by his matchless eloquence many important causes even in the Supreme Court, where he had many competitors. He died at an early age, (about fifty,) while Attorney-General of the United States and *ad interim* Secretary of State. Follow his biography, and we shall easily find the sources of this power. In college, his daily walk was the occasion of the most persevering rehearsal of the masterpieces of ancient and modern oratory and poetry; in later life, his every production—his letters, even—overflow with evidences of that untiring labor, to which his diary modestly refers. Never pedantic, he was as natural when quoting Aristophanes or Sophocles as when alluding to the current sayings of his time. A slave to laborious efforts to accomplish himself, he stands an irrefutable witness to the truth, *Orator fit.*¹⁵

Once more (3d) Rhetoric suffers in the house of her friends. Even they who concede the necessity of cultivating the art, differ widely as to the means by which this culture shall be gained. One

¹⁴ His papers on Demosthenes and Cicero, on Athenian and Roman law, were far in advance of the scholarship of his day. His conceptions of the great Philip-hater and his rival, Æschines, are, perhaps, the truest ever framed. His knowledge of Roman law was as vast and comprehensive as his erudition in that of his native State, and this at a time when hardly another man in our land knew anything of the subject. Mr. L. was, also, an accomplished linguist, knowing with the nicest exactness not only the classics, but German, French Spanish and Italian, in their literatures as well as their vocabularies.

¹⁵ Other cases are cited by Day, *Art of Discourse*, pp. 18, 19.

party, emphasizing the study of principles, say: "Stock a man with rules, and let him 'work out his own salvation.'" Another party will hear only of the study of models, and say: "Show your pupil how eminent men have written, and let him 'follow suit.'" Need it be added that either side without the other is partial? The study of rules without practice has surely been enough condemned in these papers; the study of models without rules may be as justly censured. Its advocates abhor mere "formal rhetoric"—by which they mean rhetorical principles—and would confine the course to a running commentary on the best examples that can be placed before a class. The *rationale* of the process they care nothing for; the process is their all in all. O truly mechanical Rhetoric! O marvellous "rule of thumb!" Our age has repented of its blunder of trying to make mechanics by *dictum*, but has not yet learned that principle and practice are inseparable in Rhetoric; that "the poetry of Goethe and of Coleridge is not less perfect, certainly, because they were intellectual masters of the principles of poetry;"¹⁶ that

"These rules of old discovered, not devised,
Are Nature still, but Nature methodized."

Holding these views, I¹⁷ have placed at the head of this article the name of Professor Day's text-book, because, so far as I can learn, there is no other work in the English language that so earnestly impresses upon the student the true nature and value of the art, so clearly instructs him in *all* its principles, and so fully exemplifies these principles in models from our best writers. Insisting upon Invention as not merely a part of Rhetoric, but as its more important part, Professor Day gives to this portion of his subject nearly two-thirds of his book—208 out of 343 pages. Considering "fine writing" a deadly sin, he teaches that Purity, Significance, Clearness, Energy, are the more important properties of style, while Euphony, Harmony, Rhythm, Beauty, are of less, though by no means of no, importance. Everywhere he makes THOUGHT the more prominent element of discourse, Form an inferior consider-

¹⁶ Day, *Art of Discourse*, p. 20.

¹⁷ I am careful to speak in the singular number because the opinions here expressed of Day's *Art of Discourse* have been violently combatted. I wish, therefore, to assume all responsibility connected with them. I may add that they were formed after a careful study of the book, and have been confirmed by an experience of it with three separate classes.

ation. And so he gives to Rhetoric its natural disciplining and invigorating power; opens the mind of the student to the ways by which he may find the content of his theme, or even first his theme and then its content; and assails with crushing force all that is spurious in thought or expression.

It is unfortunate that the diction of this book is not more regularly an exemplification of the principles it announces. At times the text is obscure, often it grows dry, and all through it is of unequal merit as regards expression. Passages which cannot be challenged stand side by side with others that could easily be improved, and suggest that Prof. Day, in revising his older work, had more respect for the stereotype plates than for the success of his book.¹⁸ But after all, these difficulties insure the more fully a careful analysis of the work by each student, and prevent his committing it to memory. Any mischief that is done by the book as a model, is more than compensated by the excellent examples which it sets before the student. Besides, (and every practical teacher will support me, I am sure,) a text-book is only the basis of instruction, and young men of seventeen years of age know well enough how to sift the good from the bad. At all events a competent instructor can always do so for them.¹⁹

One more remark upon the course in Rhetoric, and we have done. The teacher of Composition in any language knows how little is gained by correcting exercises privately and returning them to the students. The fate of such exercises is always certain. Eight students in ten never read the corrections; the other two most likely misunderstand them. Another plan will work far better. The composition is read before the class and then corrected *orally*, the writer being seated by the professor's side, and the class hearing the corrections. In this way substantial results are gained, and the student effectually guarded against repeating his blunders. In certain cases, (especially in city colleges, where the classes attend only during fixed hours each day,) small sections of the whole class

¹⁸See the Preface dated 1867.

¹⁹My classes call the book "hard," but find it interesting. After a term's study, they have "brought in" compositions which I verily believe would have been impossible without this term in "Day." Many of the students, too, had "never before written a composition."

will have to be taken from the other work assigned for an hour, and the instruction given to them alone.

In conclusion, I would again disavow all intention of merely playing the critic. As I began these papers, so I finish them, with a reference to the actual state of the art of Composition as my apology for writing. If I contribute in any insignificant way to bringing about a revival of the art, I shall have attained my only purpose.

JNO. G. R. MCELROY.

NEW BOOKS.

PARNASSUS: Edited by Ralph Waldo Emerson. Pp. 534. Cr. 8vo. Boston: James R. Osgood & Co.

SONGS OF THREE CENTURIES: Edited by John Greenleaf Whittier. Pp. 352. 8vo. Same publishers.

THE CHILDREN'S TREASURY OF ENGLISH SONG: Selected, Edited and arranged, with notes, by Francis Turner Palgrave. Pp. 302. 12mo. New York: Macmillan & Co.

These three English anthologies; all of them made by poets of at least the second order, are each characterized by special merits, and each fitted to fill a different place. That by Mr. Emerson is the bulkiest book, and in every sense the most important. It grew out of his habit of transcribing into a commonplace book, for his own reference and for the use of his children, every poem which seemed to him worthy of preservation and friendship. As might be expected from the goodly show Mr. Emerson makes in his prose works of acquaintance with out-of-the-way places in literature, there are many valuable poems in this collection which are hardly to be met with in any other modern book. But we are chiefly struck with our poet's love of the recognized masters of English song, and even his preference for the poetry of some, whose excellence is as far as possible removed from his own type of song and of thought. That Shakespeare, Wordsworth, Milton and Tennyson hold leading places in the number of his selections might have been expected: but that Byron, Scott and Burns should rank behind nobody but Shakespeare, does surprise us. Scott indeed he regards merely as "an accomplished rhymers, and master of the ballad;" and "Byron's rare talent is conspicuously partial. He has not sweetness, nor knowledge, nor lofty aim. He has a rare skill for rhythm, unmatched faculty of expression, a firm, ductile thread of gold." "I do not know that his song can retain for other generations the charm it had for his contemporaries." "Wordsworth has the merit of just moral perception, but not that of deft poetic execution; . . . he is really a

master of the English language; and his best poems evince a power of diction that is no more rivaled by his contemporaries, than is his poetic insight. But his capital merit is, that he has done more for the sanity of his generation than any other writer. . . . But his inspirations are casual and insufficient, and he persists in writing after they are gone. . . . Leigh Hunt said of him that 'he was a fine lettuce with too many outer leaves.'" We might go on quoting, but the introduction is full of the most valuable and thoughtful criticisms, and the reader will regret that there are only nine pages of it.

Mr. Emerson's selections are arranged topically, under such rubrics as "Nature," "Human Life," and the like. They illustrate the limitations as well as the extent of his sympathies. He is evidently no reader of Robert Browning, for he gives us only three of his shorter poems; nor of Matthew Arnold, who is represented only by *Thyrsis*; while Sir John Davies, John Dyer, John Byrom, Henry Brooke, Oliver Goldsmith, Charles Wesley, Allan Ramsay, Charles Lamb, W. M. Praed, Sam Rogers, T. B. Macaulay, the three Proctors, the two Rossetti's, Tom Hood, F. W. Faber, J. H. Newman, Aubrey de Vere, Charles Kingsley, A. G. Swinburne, Fitz Greene Halleck and Ralph Waldo Emerson, are entirely ignored. In some instances this must have been purely by oversight, for several of those who have been omitted are men of whom one might have predicted that they would prove to be favorites with our anthologist, and not one of them but might claim recognition on the generous principles laid down by him. "Some poems," he says, "I have inserted for their historical importance; some, for their weight of sense; some, for single couplets or lines, perhaps even for a word; some for magic of style; and I have admitted verses, which, in their structure, betray a defect of poetic ear, but have a wealth of truth which ought to have created melody."

There are a very few poems in the book which surprise us by their presence, even in view of those generous maxims enunciated by the door-keeper of the temple. They are chiefly in the humorous department. Such are the poem by George H. Derby, on page 491, and the one from *Punch*, on page 500. Of our new brood of Americanizers, only Mr. Bret Harte is and deserves to be represented. Joaquin Muller, Col. Hay, Walt Whitman, *et id genus omne*, are conspicuous by their absence.

Mr. Whittier's selection, as the name indicates, is arranged in chronological order, under periods, like "From Shakespeare to Milton." Like Mr. Emerson's, it is furnished with excellent and useful indices. It differs from Mr. Emerson's in containing a much larger proportion of poems by authors who are not illustrious. And this fact gives his book an especial merit; it gives a haven of rest to many a floating waif which deserves remembrance, and stamps a poet's approval upon much that might escape notice to our loss. Indeed we regret that Mr. Whittier has not given us a collection made

on this very principle, and omitted everything that is to be found in standard English literature. Just as manual dictionaries should contain only the hard words, so anthologies should contain only what is inaccessible elsewhere. But all the small dictionaries but one, and nearly all the anthologies, are constructed on exactly the opposite methods.

On a comparison of the two collections we find that ninety-one poems, and those in many cases of considerable length, are common to both. That the coincidences are not more numerous is not owing, we think, to any purposed avoidance on Mr. Whittier's part; for he seems to have worked in entire independence of all his predecessors. It is more probably due to the decided difference in the mental character and the tastes of the two anthologists. And it seems to us that Mr. Whittier is the less catholic of the two; his selections are chiefly of poems that in their essential characteristics correspond to his own taste for the progressive-serious, the liberal-ethical and the historical-picturesque. But to the great mass of those whom his name will draw to the book, this will be a merit and not a defect. They would have been much disappointed, had it been otherwise.

There are few or no marked omissions of authors who have received the sanction of popular approval in Mr. Whittier's book, while he finds room for so many who are less known. But considering who is its editor, we do miss from its pages the poems of John Mason, E. H. Plumptre, F. W. Meyers, T. H. Gill, Francis A. Lyte, the Bronte sisters, and our own Henry Harbaugh, T. C. Upham, Ray Palmer, Carl Spencer, "H. H.," and some others. In the last period, "From Wordsworth to Longfellow," there are poems by *one hundred and eighteen American poets*, not all of them worthy of their place, we think, but very few unworthy. A small percentage only—to apply Gæthe's canon—are poetic voices; the rest are echoes of other voices. But even these echoes are often sweet and beautiful, worthy of memory and preservation, though they mark no larger inspiration of our literature. When the next age or century has grown as tired of our poetical fashions and mannerisms as we are of those of the eighteenth century, much that is here gathered will probably be cast away as of conventional merit merely. The modes that are now caught from tongue to tongue, as the Armstrongs, the Roscommons, and the Grangers used to catch the style of Pope, will then have lost their charm. A more manly and Christian tone of thought will repudiate the liberal sentimentalism which now muffles itself in great phrases; and our Mackays, Prescotts, Buchanans, Bayard Taylors, and Arthur O'Shaughnessys, will be consigned to the lunar *limbus* which Ariosto once explored.

We flatter ourselves that Mr. Whittier owes one poem—John Byrom's "Careless Content"—to our own pages. In the hope that he may have an opportunity to enlarge his excellent collection, we will offer him another, which he may never have seen, as it never,

we believe, got beyond the newspapers. It is from the pen of one of his American poets—Rev. John W. Chadwick, of Brooklyn:

THE GATE CALLED BEAUTIFUL.

“And they brought a man, lame from his birth, and laid him daily at the gate of the Temple, which is called Beautiful.”

Lame from his birth : and who is not as much,
Though in his body he be stout and strong ;
And in his mind an athlete for the truth ;
In conscience, too, a giant against wrong ?

For who that guesses what a man may be,
In all his powers and graces how divine,
And then bethinks him of the thing he is—
So far below that glory, God, of thine—

Though he were greatest of the sons of men,
“Why callest thou Me good ?” he still would say ;
And all the heights already won would point
To higher peaks along the heavenly way.

Lame from our birth : and daily we are brought,
And at the gate called Beautiful are laid :
Sometimes its wonders make us free and glad ;
Sometimes its grandeur makes us half afraid.

The gate called Beautiful ; and yet, methinks,
No word can name it that begins to tell
How soar its pillars to the highest heavens,
And how their roots take hold on lowest hell.

With what designs its panels are inwrought !
O'ertraced with flowers and hills and shining seas,
And glorified by rise and set of suns,
And Junes of blossom and October trees.

So beautiful, yet never quite the same !
The pictures change with every changing hour ;
Or sweeter things come stealing into view
Which stronger things had hidden by their power.

There all the stars and systems go their way ;
There shines the moon, so tender in her grace ;
And there, than moon, or star, or sun more fair,
The blessed wonder of the human face.

Faces and faces ! some of children sweet ;
And some of maidens, fresh and pure and true ;
And some that lovelier are at even-time
Than any can be while their years are few.

This is the gate called Beautiful ; it swings
To music sweeter than was heard that day
When Saint Cecilia, rapt in ecstasy,
Heard through her trance the angelic roundelay :—

Music of little children at their play;
Of mothers hushing them to sleep and dreams;
Of all the birds that sing in all the trees,
And all the murmuring of all the streams.

And at this gate, not at wide intervals,
Are we, lame from our birth, laid tenderly,
But *daily*; and not one day passes by
And we look not upon this mystery.

Gate of the temple! surely it is that!
It opens not into vacuity;
For all its beauty, it is not so fair
But that a greater beauty there can be.

Thy beauty, O my Father! All is thine;
But there is beauty in Thyself, from whence
The beauty Thou hast made doth ever flow
In streams of never failing affluence.

Thou art the temple! and though I am lame—
Lame from my birth, and shall be till I die—
I enter through the gate called Beautiful,
And am alone with Thee, O Thou Most High!

Mr. F. T. Palgrave, editor of the "The Golden Treasury of English Songs and Lyrics," a briefer anthology for general readers, has supplemented it by a very tasteful little volume, "The Children's Treasury of English Song." The range of a child's intellectual appreciation, as Mr. Palgrave construes it, has of course determined the selection of pieces. We think that his choice has generally been very wise, even in its boldest ventures. There are poems, for instance, that, like the Lord's Prayer, are not fully intelligible to grown people, and yet a child will read them with relish. Such are many of William Blake's strange "Songs of Innocence" and "Songs of Experience," and such is Coleridge's "Ancient Mariner." Merely reflective, subjective and conventional poetry, even when its form is narrative or descriptive, does not suit such a collection. A child is imaginative, but with a matter-of-fact sort of imaginativeness. He can conceive very vividly any picture of which you can supply details enough. Mr. Palgrave seems to be very happy in his choice of poems and ballads for young readers, and the brief notes he has added are excellent, but would have served their purpose better if they had been printed at the foot of the page. We regret that, Emerson-like, he seems to have an unjust prejudice against the poetry of Mr. F. T. Palgrave, and therefore excludes from this collection the beautiful and most touching poem-story, which begins—

Four children at their little play
Across the iron-furrowed way;
May flowers upon the last of May;

and the hymn by the same author, beginning—

Thou that once at mother's knee
Wert a little child like me.

But, even with these omissions, we have in this pretty book and its twice seven dozen of poems, as good a collection of its size and sort as could be formed from the treasures of English poetry.

J. D.

CARTOONS, by Margaret J. Preston, Boston, Roberts Brothers, 1875, is the last volume of poems by a lady who has long since established her right to the title of poet. There is a marked increase in the claims to recognition by reason of the force and strength of her newer verses, and of the larger field over which her subjects range, by so much taking them out of local or personal allusions and putting them into the true vantage ground of poetry. The subjects that give the title to this volume, are stories taken from the life (should it not rather be lives?) of the old masters, and legends of Michael Angelo, Andrea del Castagno, Raphael, Dominichino, Albrecht Dürer, Murillo and Tintoretto, are told in fitting verses; a second series of Cartoons is suggested by legends of the Saints, Gregory, Ambrose, Bede, Martin, Cuthbert, Lambert, Elizabeth, and with this are some stories of German tradition very well turned indeed. "Lady Riberta's Harvest" is most to our liking of all. "From the Life of To-day" is the sub-title of the concluding portion of the volume, in which Sonnets and occasional verses, Memorials of Agassiz and Kingsley, with some stirring rhymes of French war subjects, are all brought together. The contrast of the several portions of the book is extremely well managed, and it is likely to attract the attention and excite the interest of readers of very different tastes and temperaments. We are very glad to see added to the poetry of the day, a volume which has so much merit of its own, so much in its subjects, so much in its treatment, and is withal sound and clear in sense and sentiment, wholesome to read and pleasant to remember.

THE MOVEMENTS AND HABITS OF CLIMBING PLANTS, by Charles Darwin, 2d Edition, revised, with illustrations, New York, Appleton's, 1876, is marked by all the merit and all the modesty that make part of the charm of the confessedly greatest living naturalist. There is something of a local interest in learning that the suggestion of the subject came from a paper by Professor Asa Gray, our first American botanist, but this was carried on by observations made by Darwin and his son, aided by the principal English botanists, by Hooker with his staff at Kew, and by all who could give any help. The main purpose of the book is, of course, to add another to the

examples in nature that illustrate in a striking manner, the principle of the gradual evolution of species, but in doing so, it serves the least scientific reader with a very happy illustration of the immense field of research close at hand, for all who know where to look and how to observe. Apart from the technical nomenclature and the purely argumentative discussion and comparison of the conflicting views of botanists, all given with great fullness and fairness, there is just that kind of simple analysis of movements easily watched, now that the key is freely given, which ought to attract the attention alike of the man who loves nature for its own sake, and of the man of science who studies it for the sake of science. It is one of the elements of Darwin's greatness, as it is one of the secrets of his power, that the interest he himself takes in his studies, he inspires in others, by showing that he has simply done that which others can do, that in many cases he has been anticipated, and that at best he has only anticipated what still others may do.

A TEXT BOOK OF HUMAN PHYSIOLOGY. By Austin Flint, M. D.,
New York: D. Appleton & Co. 1876.

It requires but a short retrospect of America's scientific life to convince one that the last few years have been those in which adolescence has been exchanged for maturity. This is not because there was ever a lack of great philosophical minds in this country, nor yet owing to the rise of stars of greater magnitude than Franklin, Rittenhouse and Priestley. Still less is the change due to the birth of the twenty-foot lyceum screen and its nuptials with the lime light. This latter has been an episode of the former. It is to the labors of such men as Dr. Flint that we must look for this development of our science to a plane equally high with that of Europe. So long as there were no old places in our country, the necessities of daily life forbade the existence of original research; for this requires besides the calm and patient abstracted workers who conduct it, also the most skilful mechanics, and the most modern tools and methods, in the construction of apparatus. It should be an object of pride to our countrymen that at the present time we possess some of the greatest living masters of all the various departments of human thought, and in the noble profession of medicine, which more than any other, seeks through the plenitude of human knowledge to conserve and bless each humble member of the human family, our status before the world is very high.

Many of the most eminent authorities and much of the most approved practice are purely American.

The present volume is in great part a condensation of the author's five volume work on the "Physiology of Man," which latter was intended as a book of reference rather than a text book; and yet it is difficult for those who are not familiar with the larger treatise, to imagine what has been omitted in the smaller.

The first three chapters are devoted to the blood and the machinery by means of which it is kept in motion.

Chapters iv. and v. are taken up with the general subject of respiration, and chapters vi., vii., viii. and ix. with the consideration of all the acts connected with alimentation and digestion.

Chapters x., xi. and xii., treat generally of absorption, secretion and excretion, and thus the way is cleared for the proper understanding of all the functions of special organs and groups of organs to which the remaining sixteen chapters are given.

The author and publishers are to be congratulated on the felicity with which the nine hundred and forty-four illustrations which accompany this work have been selected and executed.

In a subject of such vast importance to mankind and in which original research is being so vigorously prosecuted, it is a labor of extreme difficulty to bring a new edition of so comprehensive a character, up to the date of the current literature, and yet without this such a work must be almost useless as a text book. It must be owned that the best treatises on physiology, although the difficulty is greater, are in this respect in advance of those on physics or chemistry; yet few of them show the industry, patient care and scientific clearness of this volume, which we heartily recommend as one of the soundest and most thorough pieces of scientific work which our country has produced.

It is but fair to add a word of praise concerning type, and paper, and workmanship, all of which are of the best kind of typographical art.

FERDINAND DE SOTO: The Discoverer of the Mississippi. By John S. C. Abbott. Illustrated. New York: Dodd & Mead.

An appropriate motto for this work might be taken from Sir Roger de Coverly: "Much may be said on both sides." If to act well our part be the lesson history should teach, a straightforward dealing with his subject should be the historian's first aim; but, anxious to shield his hero, Mr. Abbott deals with treachery and cruelty as the consequences of false positions, and as "apparently unjustifiable," when they violate every instinct of humanity and morality. His judgment of the character of De Soto is more lenient than the facts which he puts before us warrant. *Finis coronat opus* may justify the fire and sword of the infidel, who sought only the glory of Allah and of Mohammed His Prophet; but what can justify the Spanish adventurers, who went in the name of Christ to betray and massacre unoffending people in the thirst for gold alone? The age of De Soto was one of fierce energy; and the indomitable courage which sustained a handful of strangers against tens of thousands cannot but fire the dullest and make us regret that so wonderful a tale should be so "evil apparelled in the dust and cobweb" of Mr. Abbott's moralizing. How it is that the conversations are all reported verbatim is not disclosed, or whether they spring from his imagination, as Froude and the ancient historians record the actions of their subjects.

BOOKS RECEIVED.

Peterson's Complete Coin Book, containing perfect fac-simile impressions of the various gold and silver coins throughout the world, with the United States mint value of each coin under it. Price \$1.00. Philadelphia: T. B. Peterson & Bro., 306 Chestnut Street. 1876.

Little Joanna. A Novel. By Kamba Thorpe. 8vo. paper, 60 cents. New York: D. Appleton & Co., 1876.

Her Dearest Foe. By Mrs. Alexander. Leisure Hour Series. \$1.25. New York: Henry Holt & Co., Publishers.

Mrs. Limber's Raffle; or, A Church Fair and its Victims. A short story. New York: D. Appleton & Co., 1876.

Percy Bysshe Shelley, as a Philosopher and Reformer. By Charles Sotheran. Illustrations. 8vo. pp. vi. 51. Price, \$1.25. New York: C. P. Somerby & Co., 139 Eighth street.

Jonathan. A Novel. By C. C. Fraser-Tytler. Leisure Hour Series. \$1.25. New York: Henry Holt & Co.

Library Notes. By A. P. Russell. 16mo., pp. 401; price \$1.50. New York: Hurd & Houghton. [Smith & English.]

The Elements of Physical Geography, for the use of Schools, Academies, and Colleges. By Edwin James Houston, A. M. 8vo. Price \$1.75. Philadelphia: Eldredge & Bro., 17 N. Seventh St.

History of the United States. By J. A. Doyle. Freeman's Historical Course for Schools. Price, \$1.40. New York: Henry Holt & Co. [Claxton, Ramsen & Haffelfinger.]

The Protection of Majorities, or Considerations relating to Electoral Reform, with other papers. By Josiah Phillips Quincy. Boston: Roberts Bros., 1876.

Fetich in Theology: or Doctrinalism Twin to Ritualism. By John Miller, Princeton, N. J. New York: Dodd & Mead. [J. B. Lippincott.]

Daisy Brentwell. By Irene Widdems. 16mo., pp. 434. Price \$1.75. Messrs. G. P. Putnam's Sons, New York. 1876.

Comin' Thro' The Rye. A Novel. Library of Choice Novels. No. 50. Price, 75 cents. D. Appleton & Co., New York.

Telegraphy. By W. H. Preece, C. E., and J. Livewright, M. A. 16mo., cloth, pp. 295. D. Appleton & Co., New York, 1876.

Stories of The Patriarchs. By O. B. Frothingham. 16mo., cloth, pp. 232. G. P. Putnam's Sons, New York. 1876.

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MAY, 1876.

THE MONTH.

THE Royal titles bill still continues to agitate the British mind. The result seems hardly to justify the administration of Mr. Disraeli, or rather the Premier himself (for this deed is wholly his), in using the power of office to force the measure through in spite of the prejudices of all parties. English public opinion is not so quickly aroused as ours, but is more determined and more lasting, as well as more direct in its effects. It was slow to comprehend this question, and still slower to express itself; but now, if the journals of both parties be any evidence, it is pronounced, and almost unanimous, against the bill. It has been said that the question is simply one of personal feeling between the younger women of the Royal family, and that the end of the measure is only to relieve the Princess Beatrice of the necessity of looking at the back hair of her Imperial sister-in-law of Edinburgh on state occasions. This seems to be a worthy explanation of the whole matter, and a cause by no means inferior to the effect; but, whatever be the truth, it is certain that the proposed innovation strikes most English minds as both undesirable in itself and strangely ill-timed.

THE new French Chambers are getting into working order, Mr. Rouher's election in the Corsican district having been annulled, and that person admitted to the House of Deputies from another place. That strange mixture of high and low qualities, Prince Jerome Napoleon, is to become a candidate. The Prince Napoleon is a very

remarkable man. Intellectual, ambitious, pronounced in his views, eloquent and vigorous in debate, he is at the same time a man of bad life, and of faults of character that make him despised as well as hated. Whether justly or not, he has incurred the charge of cowardice; and that in France, as indeed almost everywhere, is sufficient to damn any man. But the handsome Prince carries himself as proudly and asserts himself as arrogantly as though he were the most powerful and honored of men. Doubtless in his view the nephew of Napoleon can do no wrong. He will attract much attention should he get into the Lower Chamber, as he now seems on the point of doing.

GREECE has been furnishing the company that misery is said to love, in the persons of some of her most eminent and favored sons. Corruption, in the shape of bribery, has been proved upon several ex-Ministers of State, and the Archbishop of Patras, and two other equally high ecclesiastics, who have been punished by a fine of twice the bribe. Such spectacles are always shocking, but it is a great mistake to attribute the existence of crimes of this nature solely to political institutions. The want of private honor and the decay of private honesty will make bad officials, and produce bribe-takers, under any system, no matter what it may be called. The French Empire shows as many infamous examples as the American Republic can hope to furnish. England, under Walpole, was as bad, or worse than France under Louis Philippe. All kinds of institutions furnish the opportunity, if the desire exist. No reform here, or anywhere else, will permanently cure the evils so evident amongst us, that contents itself with cutting off the flower or nipping the bud. All soils are favorable to the plant, and as the agricultural catalogues say, "it is a great bearer."

THE Herzegovinian question is still unsettled. Indeed, it seems farther from settlement than at the last writing, for rumors are rife of a misunderstanding between Vienna and St. Petersburg. A recent scandal at the former city points to a circumstance likely to create much feeling. A young officer of high standing has been detected in selling to a foreign government—not the French, says the officials journal,—some governmental secrets; chiefly, it is surmised, the plans for the mobilization of the army and possible movements on the

Southern frontier. That this government is Russia there seems to be no doubt; and in a time like this, when both nations are sensitive and pursuing the dog-in-the-manger policy, smaller things may lead to trouble. In a recent letter to the New York *Herald*, Castelar eloquently describes the peaceful condition of Europe, and dwells on the unlikeliness of war. He says little, however, about the Eastern question, out of which war will come, if out of anything.

Two things have occurred likely to cause annoyance on our frontiers: one, the disturbances in Mexico, which is going through a revolution again; and the other the row with the Sioux apropos of the Black Hills. In the first case we are clearly right, and in the latter as evidently wrong. We are bound to protect our citizens and flag from annoyance by the Mexican marauders, and just as bound to prevent our people from invading the Black Hills. The Government, it is said, does not intend to interfere with emigration there this spring. Bands of adventurers have already gone there; the Sioux have taken to the war-path. General Crook's expedition has not succeeded in frightening or whipping them back into patience under their grievances, and more men and money are to be spent in trying to do it. This is turning the Indian Bureau over to the War Department with a vengeance.

THE Prince of Wales comes home in state, after an arduous campaign. Bronzed by an Indian sun, the hero of several tiger hunts, he will arrive just in time to congratulate his mother on the new title of Empress or Begum of India, which she will soon assume. To speak more correctly, he would do so, had she remained at home; but with the same spirit that has generally taken her to Balmoral whenever her presence was especially needed in London, she has gone to the Continent, notwithstanding that Parliament remains in session, and the Prince of Wales is on the point of coming home. The Prince has had a grand time of it certainly, and will find life tame by comparison when he gets back. He will be grandly welcomed.

THE objections of Messrs. Lawrence and Butler to the appointment of Mr. Dana have prevailed, and he has been rejected. Few right-minded men will condemn Mr. Dana in declining to present his case to the Senate Committee, when he learned that it had acted

upon his case on the ex parte statements of personal enemies, or feel anything but regret that the chief committee of the first of legislative bodies should have entertained such views of fairness, courtesy and duty. The London correspondent of the *N. Y. Tribune* calls attention to the fact that Mr. Lawrence, who is so sensitive on the subject of plagiarism, has called himself in the title page of the *Wheatons* of 1868, "formerly Minister to England," when the truth is that he was Secretary of Legation nearly fifty years ago, for the period of two years, and once or twice during that time *chargé d'affaires*. Light on the history of a man so sensitive about the national honor, is very desirable, especially in view of the circumstances of this case; and this fact must awaken no little regret in the minds of men so punctilious as are many of the Senators who voted against Mr. Dana. Three things seem to have influenced these persons; first, Mr. Dana's being a literary pirate; secondly, his want of good temper when unjustly accused; and thirdly, his letter, which was deemed insulting to the Senate. The English papers are naturally full of comments on the case—one of the chief of them (the *Pall Mall Gazette*) remarking that the rejection of Mr. Dana on the alleged ground proceeds from the spirit which would punish the commission of murder, as soon as it becomes evident that that crime would lead to incivility and procrastination. The President has made no other nomination, and we are told will make none, preferring to await the result of the examination of General Schenck. The chances are that that gentleman will return to his mission for the balance of General Grant's term of office, a consummation which no doubt he devoutly wishes. Mr. Dana's experience will make it difficult to find any gentleman ready to submit himself to a Court of Honor in which Mr. Butler of Massachusetts is the Judge Advocate, and Mr. Cameron of Pennsylvania the Presiding Judge.

RUMOR—that lying jade—ventures to say that the President has begun to lose confidence in General Babcock. He begins, like the Frenchman in a certain story, "to suspect." The present condition of the ex-private secretary cannot certainly, with truth, be said to inspire confidence even in hearts like the President's. The Presidential bosom is a curious anomaly in that respect—now so cold as to chill that "plant of slow growth," as the Earl of Chatham called confidence, and then again a perfect forcing-house. Confidence in

men like Sumner, Trumbull, Schurz, Evarts, Motley, Curtis, he could not feel; but in the case of Murphy, Casey, Joyce, MacDonald, Belknap and Babcock, it blossomed like the rose. And even now it will take ocular demonstration to prove to the public mind that the love of Grant for Babcock has changed or passed away. The witnesses who have testified with regard to the General's connection with the safe burglary, are of doubtful character, and the case is not in such condition as to justify journalistic criticism; but it may be said that more suspicion attaches to the political career of the President's secretary than is agreeable to patriotic Americans to contemplate, or can be explained away as the result of unfortunate coincidence.

A STRANGE commentary on our institutions, or rather on the manner in which we take care of them, is shown in the fact that while we are celebrating our greatness and our liberty, we manage the simplest affairs so bunglingly that a House elected as a reform body fails to furnish money enough to pay for the heating and lighting of our public buildings; and in the city to which we have invited all the world to witness a display of our resources gotten up by private enterprise, so necessary an institution as the post-office is only kept lit and heated by the public spirit of private individuals. The excuse given by the committee, if the true one, matched the thing itself, and as a piece of stupid partisanship is worth remembrance. It is pleasanter to believe that the want of an appropriation arose from a mistake, and the failure to pass a deficiency bill from misunderstanding. The candle's-end economy which has thus far distinguished the Democratic House is by no means reassuring. We save little liquor by sealing up the bung-hole when the head of the cask is off, and a dozen thirsty fellows, glass in hand, are allowed to remain unwatched within dipping distance of the contents.

THE Centennial Exposition has fought its way to favor, and fairly conquered admiration. The most doubtful are now assured of its success, and where criticism has not changed to praise, it has become silent. All the nations are on the ground, and the scene in the Park is already extraordinary. Where we thought the display likely to be weakest—in the Art department—it is really going to be uncommonly strong. Nor does it promise to fail in any branch. The Machinery exhibit will surpass that of any previous exhibition, and

in nearly every department of human industry the display will be creditable in the extreme. Americans are the last, perhaps, to understand or appreciate the advantages of these international exhibitions, or their influence on national character and taste. In former cases they have taken comparatively but little interest in them, and in this they will hardly do as much as they ought to, and certainly by no means as much as they could. But they will be well if not satisfactorily represented at Philadelphia, and we shall have no reason to blush for our exhibits, while we have every cause to be proud of the preparations that have been made to display them. Energy, enterprise, public spirit, patriotic faith, courage, patience, determination, singular honesty of purpose, rare economy and prudence, inventive skill, taste, ingenuity—all these things have the Board of Finance and Executive Committee of the Commission showed. They have fairly won success for the Exhibition and honor for us all, and nothing that we can do in the way of thanks can discharge the debt we owe them.

THE death of Mr. A. T. Stewart has dissipated two ideas which prevailed with regard to him. It was popularly supposed that he was an uncultivated man of narrow mind, and that he would devote his great fortune, after his death, to public purposes. It turns out that he was a highly-educated man with a feeling for art and culture, and that he has made no provision himself for the distribution of his wealth. The public seem to feel a right to say in advance what a very rich man ought to do with his money, and one of the chief annoyances inseparable from great wealth must arise from the prevalence of that idea. Mr. Stewart had, of course, a perfect right to do with his own as he chose to do. He had made it by hard and honest labor. And yet a stranger standing at a distance may regret to see thrown away, or not made use of, an opportunity that hardly ever came before to an aged man, childless and the master of more than fifty millions. How much might not A. T. Stewart have done for Art and Culture! How blessed might he himself have made his name! He loved his country and knew its wants in that direction—and he was a man of culture and education, who cared for the beautiful! Providence gave him riches and length of days; he might have given himself honor, which is better than both of them. But he did not. He leaves his fortune to his

widow and a legal friend, accompanied with no conditions and only indefinite directions; and instead of having the happiness of being, so to speak, his own executor, gives to others the opportunity which he did not seize. Such an end to such a career closes a game that seems to have been hardly worth the candle.

THE sudden death of Theodore Cuyler in the prime of life has left vacant a place in this community and at this bar that nothing can fill. He was a man of splendid intellectual powers, well trained and highly cultivated, full of skill and resource, versatile to a remarkable degree, and the master of a pure and vigorous eloquence. He could be an orator in these times, and alone of his generation win fame for eloquence without lessening his reputation as a lawyer. He seemed to stand midway between the man of learning and the man of speech, and unite in himself the powers of both. In every department of the profession he stood in the foremost rank, the rare exception to the general rule that forbids excellence in all. And he found time in the midst of overwhelming professional cases for public duties and the charms of private intercourse. Missed at the bar, his absence is no less lamented in the social circle, for he was at once the centre of the one and the leader of the other. The death of such a man is a public calamity which cannot be appreciated, perhaps, until we learn how many burdens he bore, how much he did, how hard it is to do without him.

INTERNATIONAL EXHIBITIONS.¹

LADIES AND GENTLEMEN: The last words that fell from the lips of my kind friend who introduced me, lead me to introduce a little personal matter. I find by the cards issued for this lecture that the kind friends who made the arrangements for it, assumed to themselves a right which they did not possess, calling me a Fellow of the Royal Society, which is a very different thing from a Fellow of the Royal Society of Edinburgh. It is the very highest honor to be a Fellow of the Royal Society; that does not belong to me; it is an accident into which my friends have fallen, and I could not think of

¹A lecture delivered by Prof. Thomas C. Archer, April 13th.

addressing you on the present occasion under false colors. Therefore, you will excuse my mentioning a personal matter.

My object in this lecture is to bring before you in as succinct a manner as possible, the history of the rise and progress of international exhibitions, and to convey to you as well as I possibly can my own impressions of the advantages which these exhibitions confer upon civilization. I have a strong faith in them myself; I have always had. I have worked earnestly in them, I have seen their defects, and I have seen their benefits also largely developed, and still being developed. These exhibitions are institutions of the time, to my mind, and you are gradually awakening to that idea: you have begun your career in that direction in Philadelphia, with an institution which may not end for one thousand years to come.

The first of these international exhibitions was originated in 1850, by one of the best men the world has ever known, a man who had the interests of his fellow-man at heart as warmly as any man could have, the Prince-Consort of England. It occurred to him, and he suggested the thought to others, that we should have an exhibition of a different character, one in which one nation should vie with another, not simply one individual citizen of a city or district with other natives of the district, but that it should be universal, that we should compare notes with other countries; and the consequence was that the original idea of an international exhibition was started. It was carried out in the most admirable manner:—admirable because the Prince had in the first place the wisdom to see that the idea in itself was a good one; and, in the second place, the possibility of finding men about him capable of carrying out the idea most thoroughly, and of working it up to its ultimate success. The staff then organized was composed of as intelligent men as ever met together for such a purpose.

As a rule, the lesson then taught has been followed up, and each nation has taken the greatest possible care that the administrative staff should be composed of great and good men, and no nation has been more careful than this; so that those who are directing the international exhibition here, after close study of the results of other exhibitions, are fully prepared to carry out all the hopes and aspirations of those who believe that these exhibitions are a great boon to civilization.

The immediate influence of the exhibition at London in 1851 was

very remarkable. Previous to that, Englishmen had the obstinate idea that one Englishman was equal to five Frenchmen, and three of any other foreigners, not merely in muscular strength, of which they had not the slightest doubt, but in intellectual attainments, and everything which made one man better than another. Never was a nation more completely subdued than the English by that exhibition; they learned for the first time that there were some things in which others were better than themselves, and some things in which they were better; and the knowledge one gets of one's self in this way, learning his weaknesses and his strength, his excellencies and deficiencies, giving and taking, imparting to others wherein he excels, and receiving from them that in which he is deficient,—this knowledge is really the best, and gaining it was one of the best things that the Exhibition of 1851 did for us. Our art tastes were degraded in every way, but we stuck by them. We built buildings that were a disgrace, we made pictures not now worth looking at we made pottery which our ploughmen would not now use, and we went on with the idea that no one could beat us. The Prince knew better; he had a universal feeling, a feeling for art that was neither English nor German, the true art feeling. He felt that very much was to be done to bring the people together to study art principles in schools in the French manner. The result was extraordinary. Previous to that time, our art schools were very badly attended. In 1851 we might have counted them on our fingers. Out of that exhibition sprung very numerous schools of design, the art tastes were cultivated, and institutions were opened up all over Great Britain for the purpose of teaching a scientific knowledge of our manufactures, and the theory of the æsthetic knowledge of the arts. Then sprang up the South Kensington Museum. I see before me one or two gentlemen who are admirable judges, and they will give it the fullest endorsement, that it is at present one of the first in the world.

That is one of the results of our holding an exhibition when our art tastes were as degraded as they could be, and a low grade of knowledge prevailed. We have learned the opposite lesson; we have attained to a means of improvement which will go on forever. The South Kensington Museum and its affiliated institutions are completely revolutionizing the whole tastes of the country, and in such a manner as would surprise you. We have at present between eight and nine thousand schools or classes of art, at almost a nominal cost.

The system is this: Wherever twelve gentlemen will meet together and petition the Science and Art Department to establish within their precincts an art or science school, engaging that there shall be a certain number of pupils, one is started. This has gone on to such an extent that it is a very profitable thing for the teachers to get together pupils in this way. They make handsome incomes, and the government reduces its capitation fee as the pupils increase and have to pay. Thus the charge on the State per head is becoming less and less, while the number of classes is going on increasing. This is one of the first and grandest results that came from the great exhibition of 1851.

Then there was another good and useful feeling originated by that exhibition. That was, the manufacturers of Europe obtained the idea that they derived a benefit from these exhibitions; that they were the best possible means of advertising, people being enabled to compare one thing with another, and ascertain which was good and which was bad, and learn to fix their choice in the right direction. It has invariably been the practice prior to each of these exhibitions to run them down—the manufacturers were reluctant to incur the cost of competition; but when one comes in, others come in, and in the end all show their confidence and appreciation of the value of these exhibitions.

The exhibition of 1851 has been followed up by a much larger series of exhibitions than is generally imagined by those paying no attention to the subject. There were two held in Ireland—one in Cork, the other in Dublin. Then in 1855 an exhibition was held in Paris.

We had also an exhibition in Manchester—of art purely. This was confined to pictures, sculpture, engraving, graphic art generally, and decorative art. That was made up almost entirely of loaned collections, which completely changed the tastes of the people in that neighborhood. The first argument offered against it was, What is the use of bringing to a neighborhood like Manchester, composed of manufacturing people, such a collection as the Hertford and other choice collections? I went there as a reporter over forty times. My chief amusement was to listen to the people, and I found that I obtained more information by listening to these mill-people than by any observations of my own. It taught me a lesson, that those who put their own opinions up as far better than their humbler

neighbors are often mistaken. Nothing ever did more good for such a neighborhood than that exhibition in Manchester.

Two exhibitions were held in Holland, the one quickly after the other. They were purely of an industrial character, and were conducted in a very admirable manner; the one in Amsterdam, in a building specially erected for it, and the other one in Haarlem, in a building hastily adapted for the purpose. Their success was extraordinary, and forced upon the Dutch people the conviction that such exhibitions are aids to trade and manufactures. The fruits produced then have been a most thorough attendance upon exhibitions, and very great practical benefits reaped from them. About the same time many others were being held in Florence, Naples, Brussels, Rome, Arcachon, Havre, &c.

In 1862 it was determined to have another exhibition in London, but previously that of 1855 was held in Paris on a very large scale. I had not so much opportunity of going into the history of that exhibition, though I attended it throughout; for, like all strangers, I became involved into the amusements of Paris,—these exhibitions for such reasons do the natives more good than strangers. In 1862 our second exhibition was held in London, although there was very great fear, indeed, that it would not prove a success; and this is always one of the first features when an exhibition is talked of—it is prophesied that it will be a failure, that it is one too many, and such croakings. It did, however, prove a very great success. So thoroughly imbued were many with the exhibition idea, that it was thought desirable that, instead of being held once in ten or twelve years, one should be held every year, and this led, in 1871, to the plan of the Annual International Exhibitions, which, as I shall tell you afterwards, was not so successful. In 1862 we had what we had not in 1851; we had fine art as a very important feature, and the picture gallery of 1862 was perhaps one of the finest in the world—admirable in its construction, admirable from the comfort it gave to the spectator, and admirable also for the works shown in it, though in that respect not more remarkable than the average of our exhibitions usually. The exhibition of 1862 gave a great stimulus to the rest of the world, and forced the idea still further that exhibitions must go on.

In 1866 an exhibition was held at Stockholm, in Sweden, which

was very beautiful, and was got up with the idea of only exhibiting local productions; but it was extended to all Scandinavian productions, and Norway, Sweden and Denmark participated, and there were a few representations from other countries. The arrangement now is that every third year there shall be an exhibition in one of the Scandinavian capitals. In 1872 the second one was held in Copenhagen, and it was a most admirable success. It is due to these small exhibitions that you have so many countries now coming forward to yours. For instance, Norway and Sweden:—what can there be more elegant than the arrangements they are making? There is taste, organization, and thorough knowledge of exhibition work. This arises from the fact that they have held exhibitions themselves, which have been successful in advancing their comfort, their commerce, and their general happiness as a people.

In the great Paris Exhibition of 1867 there was a widening of the exhibition idea altogether, the idea of representing nationalities. Every nation wanted to be separately recognized there, and the grounds were consequently immensely extended; and they had arrangements for showing the national houses and restaurants, the national modes of living and costumes, and it was one of its chief and most agreeable features. This was carried out still further at the Vienna Exhibition, and will have even a wider range at the exhibition so soon to be inaugurated.

The exhibition held in 1872 did not attract much attention either in Europe or America. It was held in one of the most picturesque spots upon the globe, the last indeed where it would have been expected to have a great exhibition, the exhibition of Moscow. This was the first effort at a scientifically organized exhibition, and I am sorry to say it was the last. I hope it will not long remain the last, but that the principles upon which it was inaugurated will be those upon which exhibitions in future will be carried on everywhere. The effort was to have a philosophical arrangement of all the articles exhibited, every class being grouped within a space commensurate with its requirements. The exhibition was held in the Alexander Garden, and it covered two miles of space. It ought to have attracted the greatest possible notice all over Europe, if not from more distant countries, but it was very little visited except by the natives of Russia. But it was the most teaching exhibition that has

ever yet been held. No human being could walk through any one of its classes without coming away much cleverer than he went there, simply because the organization and the arrangement were so wonderful that you could pick up knowledge and information without knowing it. Just, for instance, as in your United States government building you will show your postal service with all its appliances (and I have no doubt they will be very good), they had a postal department where you saw not only what they were doing in Russia to bring their postal system to perfection, but in every country in the world. For instance, there was a long avenue of postmen, of course dummies, each one arrayed in the costume of his respective country; there was an album containing the postage stamps of every country, a library composed of books containing forms for every purpose connected with postal administration, and a long line of carriages used for carrying out the postal arrangements—everything from the rude sledge of the wild Kamtschatka to the formal yellow painted van of the German States, where they like yellow better than anything else. There was also every form of telegraphic apparatus. Then there was the post-office itself with clerks in attendance, and telegraph office, so that you could write or telegraph to any part of the world.

Then in the medical department there was a hospital such as is used in their large cities, furnished with every appliance which might be required for accidents at any moment; in the dispensing department all proper pharmaceutical arrangements, and outside a garden in which every medicinal herb was growing that could be used in this department.

In their States Department corresponding to your United States Department, their navy was illustrated by a man-of-war put up in sections on land. There was every kind of fitting for the saloon cabins and for the men, every kind of appliance for shipboard life; the rigging was shown, the sections taken, showing the masts standing and the other parts left out; the sails were flapping in the wind, and you saw how they were made. The flax was brought in, spun into yarns, and woven into sails, the ammunition was made upon the spot, and the very cannon were bored while you were looking on. It was, in short, a polytechnic display the most perfect the world has ever seen.

I mentioned to you that the Copenhagen exhibition which was held the same year as the Moscow one, was not a large one; it was

chiefly for the display of Scandinavian products. The exhibits of porcelain were exceedingly fine, and they pointed out to me what an immense influence the other exhibitions had in stimulating this beautiful art, and bringing it to such perfection as I there found it. It had broken down the Royal monopoly of making porcelain in Copenhagen, showing that it did not meet the wants of the people, and that private enterprise had brought up manufacturers who were surpassing the Royal Works. The following year the Royal Works broke down completely, not a bad result of the exhibition.

The Vienna Exhibition, in 1873, was so much wider in its aims that it deserves especial mention. Its development of the national idea was much in excess of all the demands, and the stimulus given to the various nationalities of the Empire to do something, although too poor to do much, caused so great a strain that the exhibition cannot be considered a very great success. Still I am convinced that seeds were sown upon that occasion which will produce good fruit for Austria. I know personally that at this time many trades which were in a dilapidated condition when the exhibition opened, are thriving now. This is a small result for the immense exhibition of Vienna, but it is only owing to peculiar circumstances that no better results followed. I am firmly convinced, however, that the time will come when the seeds then sown will produce great results. It has given them the feeling that they can hold their own with the rest of the world in a variety of ways. They have opened their country to the outside world in a larger measure than was thought of before, and this has given an international feeling and has been productive of growth; they have let in intercourse with the world, which has brought in many wholesome influences, and must conduce to their benefit.

It was hoped that the annual international exhibitions in London would be permanent. It was thought that breaking up these exhibitions into annual sections, representing only a certain class of articles each year, was better than to put forth the entire efforts every ten years. The idea was a good one, but the administration was bad, and they of course failed. It could not be carried out without great and constant energy, and that could not be sustained year after year. Besides, we in England have people who like to get a good job. You have some in America, but you haven't them all. The international exhibitions became comfortable berths to a great many people, who preferred them to the ex-

hibitions. Of course the exhibitions failed. The principle was good, but was badly carried out. The idea was not an original one, but was copied from the French triennial exhibitions held during the First Empire, and again copied in France in the small exhibitions held every four years in Paris, known as the *Concourse Centrale*. These are admirable in every way, and are the most useful and beautiful that have ever been held. They are regulated with great care, not by an official bureau, but by the manufacturers and producers themselves, who form a committee among themselves of various tastes and sound judgment. A man must be well known and a sound man to get on this committee. Nothing gets in without running the gauntlet of the whole committee, and very little that is indifferent obtains admission. The people in France thus have an opportunity of seeing in a moderate exhibition the best efforts of art and manufacture in their country. It is a great aesthetic lesson for the people themselves. They learn what art can produce, they desire to have it, and every person connected with it is benefited.

The next great effort was by the proposal to hold an exhibition here. You know quite well that it was not at first very warmly received in Europe. I told you before that every exhibition since the first has always been met with the greatest difficulties. People always prophesy failure. The busy man says: "Oh, bother, here is another exhibition," and the poor hate them, fearing that they will be at a disadvantage with the rich. But the difficulties always give way. They have done so at least hitherto. We have just begun exhibitions, and shall go on with them to the end of time. No sooner was the mind of Great Britain convinced that you were serious in your intention of holding a great exhibition, than they came forward in my country with a thorough earnestness of purpose and a determination to do their best, and the strong conviction that you were doing the right thing too in taking your share of the great benefit which we are sure do arise from these exhibitions. We have come forward in this matter—and I speak now not as an Englishman, but as an European—with a determination to aid in carrying this out to a complete success. If it does not teach you valuable lessons—but I am sure it will, for you have the same feelings—your efforts will be sadly wasted. We, on our side, shall carry back to the Old World many lessons you have taught us which we shall never forget.

We have seen that wonderful adaptability to meet the difficulties of nature in your vast country which we do not know in our little home. You have shown how you can adapt yourselves to the altered circumstances, and it is impossible not to notice how you have grappled with these, without respecting the talents which have enabled you to do it. You show us by what you have done that there is much for us to take into consideration ; a knowledge of the soil, the temperature, and many other things of which at a distance we know nothing, and which must have a powerful effect upon the dispositions of those who are in contact with them. You have taught us that, under the most adverse circumstances, you have made the best of them ; but more than that, we are taught that here we meet with our own kith and kin, that our own blood is in your veins, and it is our own fault if you are in opposition to us. We come here, and we find not the typical Yankee, the counterpart of Cook's tourist, but men with the same love of culture and of right which we are accustomed to find in our best circles, the same genial feelings in all classes, the same warm sentiments. I am sure that I and my countrymen will leave with these feelings most warmly impressed upon our minds. We shall leave with an admiration of your exhibition, an intense admiration of those who have brought it to a successful end, and with a warm feeling for the hearty welcome which has been extended to all of us.

CREATIVE FORCES.¹

MIVART and Argyll hold that new species are developed out of old ones with as much regularity, and as little direct interposition of Divine will, as oaks from acorns ; that in all organisms there are tendencies to depart from the parental type ; that those tendencies are innate, and ready to manifest themselves whenever certain conditions are fulfilled ; that those conditions are determined by immutable laws, and that those laws were established at the first inbreathings of organic life. Darwin is criticised by them not because he believes in the existence of such conditional forces, but because he claims to have discovered them ; those authors contending that natural and sexual selection, though instrumentalities, are not the only, nor the chief, nor even the prominent ones appointed

¹From a monograph on "The Supernatural."

for this work; that the changes, instead of commencing in minute, indefinite, individual variations, and advancing at a very slow and steady pace to meet the emergencies of an endless battle for life or love, reach their goal at a single bound, under the influences of forces whose nature and methods of working are yet enveloped in the profoundest mystery.

While they have shown upon what insecure foundations rests the hypothesis of Darwin, they have at the same time failed to thoroughly establish their own. They are forced to make two concessions that render possible an interpretation of the phenomena of nature, which, while answering as fully the claims of science, is more in consonance with the natural and commonly received interpretation of the Scripture record, and satisfies in larger measure the cravings of the hungry human heart. The concessions are these: First, that they know nothing either of the nature of these supposed creative forces or of their methods of working: Second, that, to use Mivart's own words in his *Genesis of Species* (p. 295), "the soul of every individual man is absolutely created, in the strict and primary sense of the word; that it is produced by a direct or supernatural act, and that by such an act the soul of the first man was similarly created." What valid objection can they urge to our believing that those so-called creative forces are directly controlled by some self-conscious intelligence, inasmuch as they confessedly know nothing about them, and especially as they concede that there are phenomena, the introduction of human souls, which can thus, and thus only, be explained. Grant if you please that there are, indeed, forces properly denominated creative, that they are subject to unchangeable laws, that new species are born out of old ones, that out of brute life has sprung the human; yet, as we are conscious that our own wills are essential causes, sources of unfailing force, lying outside of the chain of natural cause and effect, and are capable with a finite knowledge of stepping in and by skillful appliances directing the elemental forces to the accomplishment of their own sovereign purposes, we can readily conceive that the Divine will, guided by an infinite knowledge, can, by complying with the conditions that unfetter these creative forces, turn the currents of organic life into whatever channels it chooses. The transformations wrought by the human will upon the Earth are marvelous; yet no natural force has been destroyed, no law abrogated. The relations of the Divine will to the universe need be no

less intimate, but rather may be inconceivably more so. If the will of Jacob could by conforming to certain laws cause the cattle of Laban to foal speckled calves; if the will of the pigeon-fancier of today can develop the Tumbler and Pouter out of native breeds; may not the will of God by precisely analogous methods make these very creative forces its ready servitors? The fact that such forces exist, instead of precluding the idea of the interposition of will, strongly suggests it. Our own experience ought to teach us this, utilizing as we have so many of the mechanical and vital forces.

Huxley thinks that all the differences between men and brutes are traceable to the effects of the gift of speech, and that it might come from the very slightest change in the structure of the nerves that control the muscles attached to the vocal cords. Let these muscles vary never so slightly from their present exact parallel action, and we would be struck dumb and sink soon into brute life. While controverting the conclusion to which he endeavors to lead us by this unquestioned fact concerning the structure and working of our vocal organs, we acknowledge the service he renders in revealing how, by the slightest exercise of the Divine will, informed as it is by an infinite knowledge, the widest revolutions of change in organic life may be inaugurated and then entrusted for their further development to the effect of forces already at work in the world under established law. May not even Huxley's "spontaneous," and Darwin's "fortuitous" variations be the result of this Divine interference, if it be true in any instance that species have thus begun? As these theorists make no pretensions to having discovered the origin of these individual variations, how can they reasonably object to our reverently regarding them as the results of direct volitions of Divinity? As the intellectual and emotional states of the mother at certain critical periods in the development of the fetus leave upon it an indelible impress, possibly God may by dropping a simple suggestion at those times of crisis effect any desired change; for surely He can communicate with his creatures if they can with each other: indeed, we may safely say His facilities for this mental commerce as far transcend ours as does His knowledge of mental law.

While, then, we can hold it quite probable that creations have come through birth under law, we can also perceive how this system of conditional forces can help rather than hinder the efficient interposition of Divine will. We can therefore offer no welcome to

the thought that God ended direct personal shaping of the destiny of His creatures in a past so remote that eons of geologic time have since then rolled by in an almost endless succession ; for the very theory that thus removes Him as a Creator, when followed out to its legitimate logical conclusions, equally removes him as Father and Friend, as the sympathetic Answerer of the passionate pleadings of stricken hearts.

WM. W. KINSLEY.

THE NEXT AMERICAN REVOLUTION.

THE "differentiation" of occupations, to borrow a word from the language of Science, is one of the traits of social development. Its progress might be distinctly, though laboriously, traced in a historical review, but its extent is visible at a glance when we compare the conditions of an ancient and of a modern community, or in the same age, of a young settlement and a city. No doubt the individual man grows more equally in every direction, where he combines with the labors either of hunter, herdsman or farmer, those of artisan and soldier and legislator ; but equally certain is it that in no one of these directions is so great progress made, and therefore not only men but Man so fully developed, as where each member of the community does that work for which he is best fitted.

I propose to speak of the manner of the application of this principle of the Subdivision of Labor to political affairs in the United States.

Springing in barbaric times from physical or mental superiority—its common root everywhere—European Oligarchy, improving by culture, like the primitive type of many a noble fruit, had grown here and there, long before the American Revolution, into a true Aristocracy, a government of the Best. But the tree was too much diseased to allow of transplantation in a new and uncongenial soil. No other form of government than that of a Republic could have been formed here by our ancestors, however much we choose to accredit them with a pure love of Republicanism. A government based on the presence of a privileged class implies the previous existence of Privilege, which is not made by law, but grows and then makes the law that recognizes its existence. In a State like ours, therefore,

without class distinctions, the right of suffrage and of office must be free to all, except by such restrictions as property, age, or residence may fix. But a theory is not always *immediately* proved by practice. The habit of deference, in small communities, to men of wealth and education, possessions then generally combined, and held by those connected with the higher social class in the mother countries, placed, for a long time, good men in office. In the older States, too, many places, now filled by popular vote, were long in the gift of the Executive.

But the reaction from the doctrine of hereditary power, during the French Revolution, soon made all men, save the coolest, incredulous of any possible virtue in the root of so noxious a plant, and forgetful that special fitness or training were as necessary in public as in private business. The further unsettling of ancient traditions by Bonaparte's wars; the rapid growth of the country by immigrants thrown out from the European turmoil; the discoveries in science leading to the substitution of the factory system for the old hand-work, with the consequent opening of many new and short avenues to wealth without culture—all these hastened the development of whatever evils are peculiar to democracy. Momentum increases rapidly on a downward road. Even a universal education, not universally thorough, like a swollen stream spreading over a flat country, fertilizing it for the future, at the cost of devastation and miasma in the present, does perhaps as much harm as good. If any art can be mastered in three or four years after leaving the Academy, if capital and even wealth will rapidly follow, why should it not be possible to make a Congressman or a Legislator between the primary meeting and the opening of the session; and if it "pays" equally well, why should not an intelligent youth, with his fortune to make, enter upon politics as well as any other business? *Finis coronat opus.* Starting upon this basis, the qualifications *are* reached, and the business made to pay.

The same causes, or similar, have drawn the originally governing class away from State affairs. Except in the South, where this class more largely and longer held its wealth in land, the capital of the nation, which had been represented in State or National governments by such men as Washington, Adams, Jay, and Livingston, began to accredit its delegates rather to meetings of stockholders of manufacturing, canal, railroad, and mining companies; and an intellect

which a century ago would have sought as its natural field the national Presidency, is now more ambitious of that of a Great Trunk Line.

So it has come to pass, that while the principle of the subdivision of labor is in practice recognized in our politics, as well as in everything else, the essential good results of the principle are not obtained. It is no doubt true that in our free society those best qualified for their respective pursuits generally follow them; and that the abilities which naturally seek their exercise on the judicial bench, would not do so much credit to their possessor on that of the shoemaker. But unless we are mistaken in our estimate of the requirements of public station, a reverse rule there holds. Specific persons follow politics professionally, but they are not usually those best qualified. It is not that men enter the service of the State after less time of direct preparation than formerly. For though the Parnassus of excellence in all things be as high as ever, yet the aids to the ascent are so much greater that no man's claim to have made it can be doubted on the mere ground of shortness of time. The trouble is a deeper one. The Psalmist-King asked, "Who shall ascend into the hill of the Lord, and who shall stand in his holy place?" and he would answer here as he did in the theocracy wherein he reigned—"He that hath clean hands and a pure heart, who hath not lifted up his soul unto vanity, nor sworn deceitfully."

Whence then are our governing classes? Who does not know the young lawyer, with mind untrained to laborious study, or the skilled activity of intellectual fence, but with cunning and unscrupulousness developed in petty suits before magistrates' courts, and sharpened by need; or the salesman, broken down by drink, become the seedy dependant of a newspaper itself dependent on fearful office-holders; or the shiftless mechanic who never mastered his trade; or the adventurer who never attempted one, but having run through a small inheritance, considers that the world owes him a living? These are the men who are used by those of a higher species in the same genus, the differences being in the degree of development of talents, audacity, or money. Under the guidance of the latter, the former select the persons who, with themselves, shall attend, and the delegates who shall be elected, at the primary meeting. When the nominating convention is held, the agents see that the officers previously determined are chosen, and the prin-

cipals duly nominated as candidates. While the superiors dictate the endorsements of the press, manage ratification meetings, and collect funds from business men who believe the country's prosperity identified with the success of their traditional party, but who have no time to meddle with politics, the lower class *attends to the polls*, before, during, and after election. An election so laid and incubated, produces the brood of legislators and others, who besides other labors make the various minor executive officers. And here comes the reward of the workers. However ignorant of the duties to which they may be assigned, they are fully competent to fulfill their obligations, and alive to the opportunities of becoming "bosses" in their turn. Such a wondrous scheme is more than a Ring; it is a series of Rings making a chain too strong to be easily broken—a Chinese Puzzle too intricate to be easily thrown off.

"These be thy gods, oh Israel!" These are the specialists to whom the custom of the country confides the direction of its affairs. This is the Oligarchy (not the Aristocracy) of America! This is the privileged class into whose hands we are fallen in our recoil from the privileged classes of Europe.¹

With the certainty of an echo comes the first inevitably proposed remedy for this state of things: "Every good citizen (as well as the bad) should attend the primary meetings, and see that good nominations are made, and the party machinery honestly worked until the election." There was a time when every citizen was notified to appear under arms once a year, to qualify himself to serve the country as a soldier. Regular troops and volunteer organizations have now taken charge of that specialty. There are persons living who can remember when it was also every citizen's duty to assist with his private bucket at the extinguishment of fires, in what are now our large cities. The same movement towards organization that subdivides other forms of labor in large communities, has confided this branch to the Fire Department. A "good" citizen who, under the pressure of conscience, attends alone and without previous preparation a primary meeting, finds himself very much in the position of one who should "make suggestions" to an engine foreman at a fire. How shall he who steals a few hours from

¹It is hardly necessary to say, that I am not unconscious of the existence of many honest and able men in every department of our government; but I am speaking of classes, not individuals.

his business just before election, meet fairly him who "runs the machine" all the year? If there be any lesson taught by the survey we have made, it is that those who now succeed in political affairs do so because they *make them their business*, and that whoever will take them out of their hands must do the same.

A second and fainter echo calls attention to the Independent, or Reform, movement, as the antidote desired.

The inadequacy of this remedy lies in the fact that whether applied, as it generally is, to remove some mere symptom of disease, some pressing temporary grievance; or whether (notwithstanding the continually growing inappropriateness of the name) it aims to be a permanent organization; it overlooks, to some extent, the necessity I have urged—of the *permanent application to all its business* of persons qualified by taste or training. In the first case the men interested change with each new issue; in both, they confine their work mainly to the finding of safe candidates, instead of becoming candidates themselves,—and to the watching of those elected. This, so far as it succeeds, may put a price on the profession of reform principles, which will lead to suspicious additions to the party from the ranks of the present political specialists. Among the latter, those who manage affairs through their agents, do so for the purpose of taking office themselves. Why not, like them, act upon the maxim, "If you want a thing well done, you must do it yourself?"

As a third party, temporary or permanent, an "independent" organization can do little except in those infrequent instances where it may hold the balance of power. In every State two forces, one tending to advance, the other to retard, produce two constant parties, whose conflict, under whatever names, seems essential to its healthy growth. Nor is this strange, when we see the same duality pervading everything, and showing itself in the undulatory movement ever recurring in physics and metaphysics.

What then remains? The answer has been already indicated. Politics must still be followed as a specialty, but the class which we have described as the present experts in the field should be replaced by the best men, morally and mentally, in the country. The question is, how?

The value of Reform movements in our large cities, where they are most needed, is that men of this class are being drawn through them into public affairs. True, they appear as yet in no heroic part,

apparently unconscious of any *rôle* they might claim, higher than that of the Tax-payer, but no matter; histrionic associations may discover to even the property-man of the theatre his genius, and he may appear at last with credit as a leading actor.

It is plain that Providence has ordained, in every State, the existence of a class having natural advantages of ability or circumstance for State affairs? Among rude peoples, physical strength, with courage and intelligence, pervading a race and intensified in individuals, are the evidences of this "fitness," which constitutes always the true "Divine Right" of oligarchy and monarchy. The same qualities, especially the higher, bringing wealth in trade, or excellence in war, at the bar, in art and science, now ennoble their possessors, in countries where the feudal aristocracy is becoming extinct from the change of conditions under which it originated. As said before, our government was formed too late for any permanent aristocracy but that of this later and higher type, the aristocracy of Civilization. Our mistake has been that we have not availed ourselves of it. England gives or offers knighthood to a Scott, Landseer, Arkwright, Peel, Stephenson, Dickens, Faraday, Davy, Rothschild, and Brunel; and peerages or official honors to a Pitt, Erskine, Brougham and Macaulay; an Addison, Burke, Wilberforce, D'Israeli, Gladstone, and Bulwer. Though title may seem on such men but tinsel on a golden crown, yet by associating with its governing class its highest types of excellence, the nation strengthens that class, and declares her right of "eminent domain," and of appropriation to public purposes, over the best that she produces. Meanwhile our public service so little brings public honor, that a man who has made reputation otherwise risks its loss by entering it. True, Bancroft, Motley, Marsh and Boker, have been sent on sinecure foreign missions, and Hawthorne had a consulate, and Dana may, by the grace of Butler, be Minister to England; but these few exceptions show how almost universally our governing class in politics is separate from our governing class in letters; while in art, in finance, transportation, and natural science, the divergence is even more marked. In both countries wealth is as eagerly pursued; but the presence in England of a class credited with superior culture, and largely controlling the government, makes the acquisition of wealth as little an incentive to enter its civil as its military or ecclesiastical service. On the other

hand, as if to compensate for the lack of an ancient foundation, our new country has opened so many, so wide, so direct avenues to intelligence and riches, that the proportion of men who, free from business anxieties, can bring their own or their sons' training to the service of the State, and form a true aristocracy, is as great here as abroad.

Now it is this wealth that we must utilize. Not that wealth should govern us—this is the present evil. Wealth is but a symbol, an outward and visible sign that gives us a right to look for the inner grace of culture. But it is an almost essential sign. I know that wealth is unpopular;—we all sneer at it, (best evidence that it is but a sign, not the thing signified,) but till gold can be found free from the ore, grain grown without straw, and souls matured without bodies, most of us will continue to look to the wealthy countries and their wealthy classes as the parents or guardians of civilization. Let us see how the sons of the rich men of America, of all kinds, fill this sphere. They re-invest their patrimony, and with the patient purposelessness of instinct, repeat in new generations the paternal processes of accumulation. They maintain the leading Yacht and Turf Clubs; they ornament Newport and Saratoga in summer; help to maintain other clubs and the opera in winter; and when greater variety is needed, fly to Europe for a few months. They support and control our galleries of Art, our monumental associations, and entertain, public or private, eminent authors and artists. They invest or speculate in stocks, and are often drawn into usefulness, or at least prominence, as railroad directors. They fit themselves for a profession or become men of business, with a view to occupation, or to provide against the chances of fortune. They lead in scientific, philanthropic, and religious enterprises. When the tax-gauge shows a dangerous pressure of misgovernment, they originate and maintain the Reform movements already mentioned, in which they display all the zeal and ability whose absence from our public service they denounce. Here they pause. Having adorned the approach and opened the door of the Capitol, having even dispossessed unworthy occupants, they seek for others, less qualified than themselves, to enter and assume the Senatorial chairs. Or, perhaps, they may be thought to regard it, not as a Court where a throned King of the People may dispense justice, but a Temple which they fear to profane,—and to stand, like princes of Egypt,

guardians around the divinity, though it be a mummified monkey.

Is this because they feel the task above them, or themselves above the task? Not at all the first, and not altogether the latter. Were it possible to empty simultaneously all of our public offices, the natural desire to be conspicuous, to rule, or to benefit the community, would re-fill them at once, under the present sense of needed change, with men of better average qualifications than now occupy them, and with many of the class of which I speak. But for one such man, here and there, to "enter the political arena," means that he must give up congenial pursuits for labors not less arduous than those of any profession; accept association with such political specialists as already described; expect their equally distasteful favor or disfavor, with abuse from newspapers, suspicion from friends, hindrance in well-doing by laws meant to prevent ill-doing, and a final sense of having perhaps thrown away strength on the unattainable.

Still *this is the way out*. These are the sacrifices demanded of you who, conscious of misgovernment, are conscious too of ability, through Providence, to govern. It is not the force of Monarchy or Dictatorship that we want, but of Aristocracy, which is all that gives Monarchy its power. *Noblesse oblige*. "To whom much is given, of them much shall be required." In the maturity of our disasters, the childishness that shrinks from office is as criminal as the selfishness that seeks it. In an assault, the front rank expect little more than to make an entrance and footway for their oncoming comrades, —what higher glory then to the generous soldier than to be in the front rank! If the sacrifice be inconspicuous, accept that feature too, as a necessary one, as it always is of the greatest. What better commemoration of 1776 than for a man thus to devote himself now to a new American Revolution! Our ancestors did not send substitutes, nor should we; but, like them, we can give our sons to this service. To no higher duties than those of the Nation can even a Christian train a capable son, for it is equally with the family a Divine institution.

The forces of nature are all immaterial, and those of humanity, specially, are all moral. Material force is a contradiction. Standing armies of thousands have no power but that lying in the consent of millions. Every good and able man is a moral force, and may claim thereby God's patent to subdue the lower of his kind; as the race has it over the lower creation. Fashions, ideas, even princi-

ples, are propagated downwards in society. The masses of a community will not give their suffrages less readily to a candidate because he is well-known and respected in private life. In these confidences men may enter this struggle; and with every success, every volunteer, new volunteers, new successes, are certain.

After the first breach, two things will help the assailants to "hold the fort." One is, to revive in our municipal and State governments the Civil Service reform. I am inclined to think that success in this matter can be sooner won in numerous localities than in the National centre. The other is, to limit by constitutional provisions—not the right of suffrage, were this possible—but the power of suffrage; so that in City and State, as in the Nation, only the Legislatures and the Chief Executives should be chosen by the people. Few voters (of the intelligent, at least) know the minor candidates for whom they vote; yet these men, when in office, largely control all elections. Would it be worse,—might it not be better, and especially if under a good Civil Service system,—if the lower officers were appointed by the higher?

I am aware that this article will be denounced as anti-democratic by the class which it attacks, and ridiculed as visionary by that which it addresses. To the latter I must admit that I propose no party, no convention, no constitutional amendment. But I must also assert that the origin of a superior governing class in any country was not in or through these. It was in individual wills; and it is to individual wills that I appeal. To generate motive power is of the first importance: machinery can be devised. And if I have used more freely than usual in such articles, language generally confined to religious themes, it is from a deep sense of the intimate connection between religion and every form of duty. While a generous Ambition, bringing its retainers, Honesty and Ability, to the national service, shall always have infinite honor at Court over ignorant, sordid Shamelessness, bearing only its Bag, yet these honors require fealty to that Sovereign on whose shoulder the Government, under every form, is laid, and who, under whatever name, is God, manifest in the flesh. To this ultimate Monarchy, by the way we have traced, the way of true Aristocracy, must Democracy rise,—or perish.

J. S. W.

CRITICAL OBSERVATIONS ON THEORIES OF THE
EARTH'S PHYSICAL EVOLUTION.

THERE are very few great problems in physical science which have been studied so long, and with such meagre success, as that which involves the dynamical causes of the present inequalities of the earth's surface. An attempt to compose the history of this problem will end in the conviction that it contains more of warning to rash philosophers than of help to cautious ones. For the earlier speculations in this field we are indebted chiefly to men who were unskillful geologists, or unskillful physicists, and sometimes both. The wiser naturalists have usually kept silent or confined themselves to the safest ground, and carefully avoided conjectures, except such as could be sustained by some respectable evidence. Until very recently no comprehensive solution of the great problem has been attempted in such a manner as to entitle it to be called a theory, although a considerable number of subsidiary propositions have been advanced, and some highly important ones have been sustained in an admirable manner by eminent scientific men in Europe. But these latter are lemmas which precede, and form parts of, the required comprehensive theory. Of this character are the arguments of Babbage and Herschel respecting subsidences; the deductions of Poulett Scrope concerning the nature of volcanic action; the theory of metamorphism sustained by Scheerer, Daubr e and Sorby. The complete theory must be one which will explain the nature, origin and laws of action of the formative force. Of the effects of this force we already possess considerable knowledge; of its origin we know but little, unless the theory which has recently attracted much attention, and of which Mr. Robert Mallet, F. R. S., is the most conspicuous advocate, be considered as a true solution. This theory—or hypothesis, as it will be called here—is an old one, having been discussed in some of its general features in the last century by Poisson and Lagrange; but it appears to have lain dormant until about three years ago, when it was revived and elaborated by Mr. Mallet and put forth in a very definite form. It is the only hypothesis which has ever been advanced upon this great question to a sufficient degree of explicitness and comprehensiveness to merit criticism; and its

author is entitled to credit for having brought to bear upon the argument a series of experimental researches and a laborious mathematical analysis, and has been throughout apparently anxious to give due weight to every objection which might be offered. It may be summarized as follows.

The earth is assumed to be a mass which is hot within and cold without, and to be continuously radiating into space its interior heat, which is slowly conducted through the colder crust, and this process has continued during the entire period covered by the evolution of the surface features. In consequence of this loss of heat from the interior, the portions which suffer a loss of temperature contract, while the portions near the surface, remaining at a temperature due to their position in space, suffer no change of volume. The nucleus thus "tends to shrink away from the crust, leaving the latter partially unsupported. This, which during a much more rapid rate of cooling from a higher temperature of the whole globe and from a thinner crust, gave rise in former epochs to mountain elevation, in the present state of things, gives rise to volcanic heat. By the application of a theorem of Lagrange the author proves that the earth's solid crust, however great may be its thickness, and even if of materials far more cohesive and rigid than those of which we must suppose it to consist, must, if even to a very small extent left unsupported by the shrinking away of the nucleus, crush up in places by its own gravity and by the attraction of the nucleus.

"This is actually going on, and in this partial crushing at places or depths dependent on the material and on conditions pointed out, the author discovers the true cause of volcanic heat. As the solid crust sinks together to follow down after the shrinking nucleus, the *work* expended in mutual crushing and dislocation of its parts, is *transformed into heat*, by which, at the places where the crushing sufficiently takes place, the material of the rock so crushed and of that adjacent to it is heated to fusion. The access of water to such points determines volcanic eruption. Volcanic heat therefore is one result of the secular cooling of a terraqueous globe subject to gravitation, and needs no strange or gratuitous hypothesis as to its origin.

"In order to test the validity of this view by contact with known facts, the author gives in detail two important series of experiments completed by him: the one on the actual amount of heat capable of being developed by the crushing of sixteen different species of rocks,

chosen so as to be representative of the whole series of known rock formations, from Oolites down to the hardest crystalline rocks; the other, on the co-efficients of total contraction between fusion and solidification at existing and mean temperature of the atmosphere, of basic and acid slags, analogous to melted rocks. The latter experiments were conducted on a very large scale, and the author points out the great errors of preceding experimenters, Bischoff and others, as to these co-efficients. By the aid of these experimental data he is enabled to test the theory produced, when compared with such facts as we possess as to the rate of present cooling of our globe, and the total amount of volcanic action taking place upon its surface and within its crust.

“He shows by estimates which allow an ample margin to the best data we possess as to the total annual vulcanicity of all sorts of our globe at present, that less than one-fourth of the total heat at present annually lost by our globe, is upon his theory sufficient to account for it; so that the secular cooling, small as it is, now going on, is a sufficient *primum mobile*, leaving the greater portion still to be dissipated by radiation. The author then brings his views into contact with various facts of vulcanology and seismology, showing their accordance.

“He also shows that to the heat developed by partial tangential thrusts within the solid crust, are due those perturbations of hypogeal increment of temperature, which Hopkins has shown cannot be referred to a cooling nucleus and to differences of conductivity alone. He further shows that this view of the origin of volcanic heat is independent of any particular thickness being assigned to the earth's solid crust, or to whether there be at present a liquid fused nucleus; all that is necessary, being a *hotter* nucleus than crust, so that the rate of contraction is greater for the former than the latter. The author points out that as the same play of tangential pressures has elevated the mountain chains in past epochs, the nature of the forces employed sets a limit to the height of mountain possible of the materials of our globe.

“That volcanic action due to the same class of forces was more energetic in past time, and is not a uniform, but a decaying energy now. Lastly, he brings his views into relation with vulcanicity, produced in like manner in other planets or in our satellite, and shows that it supplies an adequate solution of the singular and so

far unexplained fact, that the elevations upon our moon's surface and the evidences of former volcanic activity are upon a scale so vast when compared with those upon our globe. Finally, he submits that if his view will account for all the known facts, leaving none inexplicable, and presenting no irreconcilable conditions or necessary deductions, then it should be accepted as a true picture of nature."

Although it appears from the foregoing abstract that Mr. Mallet uses his hypothesis as an explanation of the origin of volcanic forces, yet he brings within the range of the same system of causation the origin of terrestrial features. They are unquestionably associated, and any theory must similarly connect them. The primary assumption, that the earth is cold without and hot within, radiating its interior heat into space, has been a well-settled conviction for at least a century; and with whatever reservation some philosophers may have accepted it, no respectable authority within that period has ever ventured to dispute it. This portion of Mr. Mallet's argument may therefore pass without a challenge. The questions which will be asked and to which answers will be offered are:

First, Admitting that the earth is a cooling body and that it is contracting internally, is the cause appealed to quantitatively sufficient to produce the effects ascribed to it?

Second, Admitting (for the sake of argument only) that the assigned cause is sufficient, does it explain, and is it consistent with, known facts and the observed structure of the earth's surface?

In connection with the first inquiry it may be remarked that Mr. Mallet has not attempted to indicate the stage which the secular cooling of the earth has now reached, but has arbitrarily assumed it to be an advanced one. This is quite necessary to the validity of his hypothesis, for it is obvious that if the secular cooling has been hitherto small, it is insufficient to explain the various known phenomena of structure which, if produced by contraction at all, would have required a very great amount of it—of which more will be said hereafter.

In the year 1822, Baron J. J. Fourier published his celebrated "*Théorie Analytique de la Chaleur.*" Among other theorems it contains a general solution of what may be termed the law of cooling in solid bodies. It is one of those solutions which form the delight of mathematicians, and illustrates the power of mathematical

analysis in the hands of a master. Sir William Thomson calls this theorem a "mathematical poem," and with some amplification has applied it to the cooling earth, upon the supposition that at some initial epoch the earth was a uniformly heated body, radiating its heat into space and receiving no subsequent additions of temperature either from without or from within. The particular problem which he proposed was, What has been the duration of the cooling, and what is the present distribution of subterranean temperature? To solve the problem it was necessary to assume arbitrarily the initial temperature. There are certain other quantities, or "constants," entering into the algebraical expression, which he determined by experiment, viz: the conducting power and specific heat of the most common rock materials. One other quantity is necessary before the solution becomes possible, and this is the rate at which temperature increases with the depth, near the surface of the earth. Since any assumption of the degree of initial temperature must be arbitrary, he took the highest reasonable one in order to avoid any objections which might be made by geologists to the smallness of the deduced quantities, placing it at 7000° F., which may be regarded as extravagantly high. It will be unnecessary to advert to his determinations of conducting power and specific heat, since no values which will probably be placed upon them in the future will materially affect the conclusions which we intend to draw. But the rate at which temperature increases with depth requires some discussion. That such an increase occurs wherever the solid earth is penetrated by boring or mining is popularly known. Among scientific men it has always been supposed to be a direct indication of great interior temperature. The rate of increase, however, is not uniform in all localities, but is subject to wide variations, being five or six times greater in some places than in others. There is, however, a mean rate of increase around which nearly all the results of observation tend to cluster: this is approximately one degree F. per every sixty feet of descent—an estimate somewhat smaller than that used by Sir William. From these data he proceeds to deduce the period of cooling and the present distribution of temperature within the globe, reaching the following results: The period cannot be less than twenty million, nor greater than four hundred million years. Below a depth of one hundred and forty miles the amount of cooling has been immaterially small—the nucleus being very nearly as hot

as ever. Various criticisms have been made respecting the quantities used by Sir William in this computation, but after making every allowance for possible errors, the following conclusion still remains from his application of the theorem: That no cooling has taken place to any important extent at a greater depth than three hundred miles. The ratio of the cooled crust to the uncooled nucleus thus deduced would be about the same as that of the peel of a fair-sized Havana orange to the edible interior.

If this argument of the most eminent physicist now living cannot be invalidated, what becomes of Mr. Mallet's hypothesis? It fails utterly by the destruction of his most important premiss. He assumes a large amount of cooling and a large amount of consequent contraction. It results from Sir William's argument that there has been only an insignificant amount of either. The difference is one which admits of no compromise, for the two quantities do not lie within the same order of magnitude, and by no possible revision can they be made conformable to each other. One of the two must be utterly wrong and untenable. The exact point of conflict will be found in the different interpretations which they place upon the observed rate or rates of increase of temperature with depth. Sir William adopts without question the view that it is an index of the aboriginal heat still remaining within the earth at the present stage of its secular cooling. Mr. Mallet holds that it is an indication of heat developed by secondary causes, produced by a stage of cooling incomparably more advanced. It may be noted here that Mr. Mallet's view is a "gratuitous assumption," the very kind of assumption which he asserts to be unnecessary to his hypothesis. The older view, although it may not be capable of the rigorous demonstration which physical problems sometimes require, rests upon some substantial evidence. We are indebted to no one more than to Mr. Mallet, for probable evidence that the seat of volcanic action is not very deep; and if the heat encountered in mines and artesian wells is not good evidence of high temperature comparatively near the surface, volcanoes are. These two indications are quite concordant, and we have no other tangible evidence bearing upon the subject either one way or the other. Of his own view Mr. Mallet has produced no proof whatever, but assumes it at once because it suits his hypothesis. Although the burden of proof is clearly with him, an appeal to it may be regarded as indecisive.

Nor is this necessary, for his argument may be more directly assailed. If it be sought to invalidate the application of Fourier's theorem by attempting to show that the heat found in mines and wells is due in any appreciable degree to the work of a subsiding crust, the effort must fail. For let us suppose that the earth has dissipated at least one-fourth of its aboriginal heat. (If it has dissipated more, the argument will be still stronger.) Then neglecting for a moment the heat arising from the subsiding crust, and all other secondary or extraneous additions, the rate of increase of temperature with depth would be, in portions near the surface, not far from one degree F. per 1000 feet of descent. But the mean observed rate of increase is some seventeen times greater than this, and if the observed rate is due to the secondary cause, then we should have the remarkable conclusion forced upon us that only the seventeenth part of the heat radiated into space is aboriginal, the remainder being generated by the work of its sinking crust, which is quite impossible. If a more advanced stage of cooling than one-fourth be assumed, then the impossibility becomes all the more conspicuous: if the cooling be much less advanced than one-fourth, the quantitative basis of Mr. Mallet's hypothesis disappears. If the proposed modification proved anything, it would prove that the subsiding crust could generate an enormously greater quantity of heat than the earth originally possessed; whereas we know that in any case the quantity so generated must be far less. The applicability of Fourier's theorem to the cooling earth cannot be impaired therefore by the proposed objection. The result of its application is the conclusion that the secular cooling of the earth is still in its earlier stages, that the cooled portion is, comparatively speaking, only skin-deep, and that the nucleus is very nearly as hot as ever. If this conclusion is ever weakened it will be by the effect of laws and processes which are at present unknown.

The foregoing argument was first presented by the Rev. Osmond Fisher, of Cambridge, (England,) and subsequently by the writer without any knowledge of Mr. Fisher's analysis. The conclusions reached were identical. But the latter gentleman, as if doubting the result of his own elaborate computations, remarks that it is difficult to conceive any source, other than contraction, of the intense corrugations which meet our observation, and suggests that metaphorism and consolidation are accompanied by a contraction of volume.

This might be readily admitted, but that it would materially strengthen the contractional hypothesis is difficult either to prove or disprove directly. Our knowledge of subterranean conditions is so small and the room for conjecture so great, that it may be advisable to shift the argument from an arena where it must debate vague and uncertain possibilities to the safer one of ascertained facts in geology. The argument presents the following phase: In seeking for the causes which have produced the physical features of the earth's surface, geologists require a supply of mechanical force, and Mr. Mallet has suggested one. The reply is that mathematical analysis, reasoning from the best data we possess, shows it to be many times less than the quantity required. To this the rejoinder is made by those who deeply feel the want of a definite explanation that the assumed data may still be erroneous, and that the requisite quantity may yet come to light from among the causes and conditions which are at present unknown. To appreciate the force of this rejoinder the most just and satisfactory course will be to appeal directly to the facts to be explained, and by careful comparison endeavor to learn whether the proposed hypothesis really explains them. If it does it will certainly be entitled to the benefit of many doubts; if it does not it may be condemned without further hesitation. What then are the facts to be explained? Individual or isolated facts should in almost every case be carefully avoided, for the discussion of them is certain to run into "special pleading," and would become interminable. Groups or systems of facts should chiefly engage our attention.

1. The origin of continents has been attributed to inequalities in the conductivity of different parts of the crust; the conductivity of the land areas being supposed to be less than that of oceanic areas. Hence the escape of heat and the consequent contraction and subsidence would be less beneath the land than beneath the ocean. This view is quite intelligible and seems to present at first no cause for serious objection—is *prima facie* a most reasonable one. But to raise such a momentous question and to dismiss it in a single sentence savors of the presumption with which writers of fairy tales treat kings and prime ministers. Yet we are in a position where we can neither do justice to the subject nor quite let it alone; and we are therefore under the necessity of making an attempt, however feeble, at a crude analysis of the subject. The first thought which presents

itself is that continents, though they are in some sense units, and may be so considered geographically, are in their geological relations highly complex aggregates. The history of such of them as we are acquainted with has been a history commencing at different points or different centres of development. Take for example the North American continent, which has been the growth of land first appearing as a number of small and widely separated areas gradually expanding throughout the ages until they have become confluent. Each portion has had its own history, its own law of development, its own stratigraphic series, and still possesses its structural peculiarities and to be undmindful of such facts would be to incur the risk of serious errors.

A further glance at these separate histories reveals the fact that the vertical movements which have determined the present altitude of these continental areas have not been uniform, whether we compare them with one another, or compare the different movements of any one area in different epochs. We find that certain areas have repeatedly undergone submergence and emergence alternately. We find that some regions which were formerly oceanic at no very remote epoch are now lofty table-lands. Then according to the terms of the hypothesis they must have been formerly regions of great contraction and subsequently become regions of less. The case may be strengthened by adverting to the following fact. All of those great prominences to which the term table-lands is usually applied and which form the most elevated portions of the earth are covered with heavy beds of marine strata of mesozoic or tertiary age—so far at least as is now known. It is not a little remarkable that the loftiest region in the world—the Himalayan plateau—reveals great bodies of strata which are marine tertiary beds lying at an altitude of 16,000 feet above the level of the sea. According to the contractional hypothesis then, the rate of contraction in this locality must have been, prior to the eocene, greater than the average; but since the eocene must have been much less. A similar and little less forcible fact is presented by the nummulitic beds of the Alps. If, then, continental profiles are to be explained by different degrees of conductivity, the assumed cause must be supplemented by some further explanation why this conductivity should, in a series of epochs, be now greater and now less than the average. The quantitative sufficiency of this cause to produce continents might remain without question

if geology had furnished proof that it had been operating continuously and cumulatively in one direction throughout the whole period of evolution. In some areas, or those of older date of emergence, the possibility might have been conceded if it had not been that, in those of later origin the difficulties are so very great. For instance, it would require that the duration of tertiary time should be a very large portion of the whole period of evolution: that the differences of conductivity should be extreme without any cause which is yet apparent: that the differences of mean temperature of the portions of the cooled shell in the contrasted areas be quite large. Although there are no data which can afford a direct numerical solution of this problem, an examination will show that under any circumstances, and whatever values be assigned to the required data, some one or more of the foregoing quantities will be involved to an extent far greater than physicists or geologists will be disposed to grant.

From whatever point of view the problem of the cooling globe is examined, we ultimately find ourselves brought back to the conclusion that it cannot be made to yield to the results which are requisite to make up the contractional hypothesis. It would seem that those who have accepted it had seized upon a factor which is insignificant in itself, and enormously exaggerated its importance; forgetting that it depends for its value upon other factors of higher orders of magnitude and that errors in the former are correspondingly multiplied into impossibilities in the latter.

2. The subject of plications is one to which the contractional hypothesis is supposed to be especially applicable. Only the experienced geologist can appreciate the vast extent and variety of the forms which they present. The astonishing attitudes, the extreme disturbance and manifestations of energy which they frequently display with endless diversity, fill his mind with wonder and awe, and the feeling increases with his knowledge. The mental impressions which they produce are greatly deepened when the mighty activity which caused them is contrasted with their present quiescence, and are yet further strengthened by the mystery which veils their origin.

Out of the vast array of facts the following generalizations clearly appear: (1) They are aggregated together in great belts where the folds lie near and approximately parallel to each other with a

high degree of flexure, while the neighboring regions are but little affected by this form of disturbance. It is true that low anticlinals and synclinals may and do occur almost everywhere, and that the distinction between these and extreme plication is one of degree most probably and not of kind: still the fact of localization is none the less true—just as it is true that some countries are mountainous and others are not, though hills occur everywhere. (2) Plications are an invariable concomitant of mountain forms. Sometimes the folds themselves form mountains and ridges: sometimes they lie upon the flanks of ranges which are composed of granite cores that seem to have risen up out of the depths and pushed the strata aside to find exit. Considerable variety in the forms of the folds is found among different mountain systems, and this might lead to question as to the identity of the forces and the modes of their application which produced them. But on the whole this identity will become apparent upon comparison, subject however to such qualifications only as would naturally arise from the original condition and magnitudes of the masses acted upon and the extent to which the action has been carried. The plications of the Alps may be illustrated by doubling a quire of card-boards, plunging the fold into a plastic mass and leaving the edges to protrude. In the Himalayas and portions of the Andes this structure is said to be repeated. In the Rocky Mountains on the other hand the most easterly ranges often have a single upturned edge of the strata leaning upon the granitic masses, and forming a fringe of foot hills with the surfaces of the strata sloping towards the plains, and their edges facing the mountains across an intervening valley. The local and meaningless name "hog-backs" has been given to them, and become current in the rapidly increasing geological literature relating to this region. There is almost an exception to this generalization in the country drained by the Colorado River. Here and also in the Great Basin the rocks are cut by great faults and uplifted thousands of feet in tables, with the strata nearly horizontal or tilted so that one side of a range shows the surface and the other the faulted edges of the strata. It has been shown by J. W. Powell that faults are, in some cases at least, the equivalents of certain forms of plication, and the exception may be apparent only. Yet it is apparent that some modifying condition was present of the mode in which the disturbing force was applied. The converse proposition—

that plicated regions are mountainous—is not always true. (3) Plications occur in regions of maximum sedimentation. Geologists seem to have paid little attention to this general fact, though it must have been frequently observed. The term maximum sedimentation is used here with reference to large bodies of sediments accumulated with rapidity. Thus the strata of the Mississippi Valley and central Russia, of palæozoic age though of considerable thickness in the aggregate, required for their deposition an epoch as long as those of Great Britain and the Appalachians, which are ten or fifteen times as thick. The two latter are intensely plicated, while the former are but little disturbed. The Alps, Jura, Urals—in brief, all the mountainous and plicated regions of Europe—the Himalayas, the known portions of the Andean region, the Rocky Mountain system from Denver to the Pacific, are all regions which are plicated and contain maximum strata. The reverse proposition is also true—that regions of minimum sedimentation are comparatively undisturbed. It might be objected that as the known portions of the earth are of small extent relatively to the whole, such generalizations must await a great expansion of knowledge before they are entitled to acceptance; and this objection is a very forcible one. Still our knowledge is sufficiently advanced, and the concordance within the limits of observation is sufficiently complete, to justify a provisional acceptance, subject to the modifications of future discoveries. (4) The epochs at which the plications commenced, were those during or immediately following the deposition of maximum sediments. It has frequently happened that a region has received deposits through a long series of epochs, like Great Britain in the palæozoic age, and also the Appalachians; but in such cases the plication has been continuous also, for a general non-conformity is found in the beds of the different epochs. This generalization, if it truly represents an order of facts, is of high importance, and worthy of more attention than it has received in such discussions; for it suggests at once the possibility, not to say the probability, that the relation is something more than a mere coincidence. The degree of truth which it contains may be ascertained with approximate certainty by a careful comparison of such facts as are settled relative to the ages or epochs of disturbance, and these are many. Some, it is true, are doubtful, and some are unknown. As to those which have been fixed with reasonable certainty, the as-

sersion is believed to be without exception. (5) In some plicated regions there may be observed a marked coincidence or general parallelism between the directions of the axes of flexure and the axes of maximum sedimentation. For example, in the Appalachians, the lines of maximum deposit are longer in a direction nearly parallel to the Atlantic coast, which is also the direction of all the axes of flexure. The same correspondence is presented in the Alps, the Jura, and the other European ranges which have been carefully studied. But whether the same relation exists elsewhere is as yet uncertain. In the Rocky Mountain region, so far as observation has hitherto reached, the thicker strata do not usually occur in elongated narrow belts having a uniform trend, but are broad and irregularly defined. But there is also less regularity in the plication and forms of disturbance than is found in the Appalachians. Our knowledge of this vast region being at present very fragmentary, it would be rash to venture upon a generalization.

Such being the features which plications present, we may proceed to inquire whether the hypothesis under discussion adequately explains their origin. It assumes that plicated regions occur along lines of weakness in the crust, and that the work of collapse has been expended there, but does it suggest any reason why those places where the strata lie thickest should become the weakest? or why the particular epoch of disturbance should coincide with or immediately follow the epoch of deposit? Whatever may be the meaning of these correlations, it is quite certain that they are not accidental, and it cannot for one moment be admitted that such a gratuitous assumption as these supposed lines of weakness is any explanation of them at all.

The displacements which the strata have suffered are frequently extreme. Not only are they buckled up into great wave-like ridges, but are frequently inclined past the vertical, and are sometimes turned almost completely upside down. In New England and the Middle States the palæozoic strata are so extremely flexed and the folds so closely pressed together that they present in many localities nothing but a series of beds all dipping to the southeast at a high angle. Yet in spite of the extreme displacement there is no chaos. The different beds are not crushed into fragments nor disorganized, but preserve their relative positions as perfectly as when they were deposited. However vast the disturbing force must have been, we

may well wonder at the gentleness and ease with which they have been lifted up or let down. As if to remind us how destructive the force might have been, we find here and there a few acres which have unmistakably been subject to lateral thrusts in consequence of the sliding of a large mass down a steep incline, or some other local cause, and the strata have "gone into pi." This preservation of continuity would suggest to the investigator who might endeavor to apply mechanical principles to the problem, that the force which produced the movements was a *minimum* force—that is, a force having the smallest intensity which is capable of producing the movement. But this is demonstrably a system of forces acting upwards at the anticlinals and downwards at the synclinals. It is equally capable of demonstration that of all possible modes in which a force could be applied to produce a fold, the horizontal or tangential application would require the greatest intensity. It is the latter force which the contractional hypothesis supplies. It is difficult to admit that it could produce complications at all: the most probable result of it would be the annihilation of all traces of structure and stratification. This inference will be strengthened by recalling a well-known law of mechanics that tendencies to rupture ("moments of rupture") increase with the cubes of dimensions, while resistances to rupture ("moments of resistance") increase only with the squares. The masses under consideration are, collectively, of the extent of states and empires; the individuals are mountain ranges and valley bottoms, and their coherence in the presence of the forces which are adequate to move them becomes by virtue of the foregoing law a vanishing quantity. Such masses, under the action of the supposed force, would be the merest rubble, and quite incapable of preserving their integrity. The action has been frequently illustrated by subjecting a pile of paper to compression edgewise. A closer analogy would be presented if the paper were reduced to ashes or charcoal before applying the pressure. A better, though far from adequate one, may be found in the chaos produced in the Arctic regions when a great ice-floe is driven upon a rocky coast.

When this article was commenced, it was intended to show that the contractional hypothesis is inconsistent with the present arrangement of mountain systems and the principal forms of mountain structure, and finally, that the figure of the earth itself, now known by geodetic measurement to be nearly, if not quite a nor-

mal spheroid of revolution, could not be, what it is, if the hypothesis be true. But the objections already advanced, are considered so insuperable, that further discussion of it seems superfluous. It is best to leave it here, for if the foregoing objections are insufficient to destroy its claim to acceptance, further opposition would be factious. The task of opposing a theory which has no competitor, is not an agreeable one, and it is especially burdensome in the present instance. For, if the opposition be well founded, it leaves geologists without any explanation of the innumerable facts which they have accumulated at the expense of so much study and labor. The writer has no theory of his own to propose: believing that the true solution must be the work of a master mind, able to cope with the subject, both from the geological and physical side. Yet, with much diffidence and a consciousness of the great magnitude of the problem, an attempt will be made to set forth a few considerations of a simple character, which may possibly prove of some small service in suggesting certain limitations which must govern future inquiry. An attempt will also be made to indicate a few conditions, which any theory must conform to before it can claim even a conditional acceptance.

C. E. DUTTON.

(To be Continued.)

LAVELEYE AND THE KATHEDERSOCIALISTEN.

EMILE DE LAVELEYE, of Liege, is a man of the first merit among the European economists. His works, like those of his friend Cliffe Leslie, of Belfast, bristle with facts and valuable observations. His readers may agree with or may profoundly dissent from him, but they cannot but be better informed on some points after a careful study of any work from his pen. This is no slight praise for an economist; the representative books of this, the most practical of the sciences, are by no means rich in this direction. One might read Prof. Cairnes's or Prof. Fawcett's works for a lifetime, and know about as much at the end as at the beginning. A good memory might carry away from their works a great mass of suppositions and probabilities; but no knowledge of any facts not known to the readers of any respectable journal. It is true that this is not the fruit of any mere intellectual barrenness in the orthodox

economists; it is the result of the principles upon which they act. They hold that the science is not *avide des faits*, and that it is more likely to be embarrassed than enriched by any new accumulations from actual experience. They argue that right on the surface of things—on the surface of human nature and civil society, that is—lie all the essential facts, all the constant elements of the problem; and that any course of observation which distracts attention from these *prima facie* facts can only distract men from the study of the constant to that of the inconstant elements.

The merely critical writers, who assail the orthodox conclusions in detail, without attempting any general reconstruction, have shown enough within the last fifty years to cast doubt on this distinction as thus drawn between constant and inconstant elements, whatever be the value or the worth of the distinction itself. They have shown that in the departments of rent, wages, labor, money, prices, and population, the conclusions of the orthodox economists are contradicted by the facts; and that not in sporadic cases, but continually and regularly, in fields and in periods the most different from each other. To have shown so much is certainly to have proved that the line between the constant and the variable elements of the problem has been drawn wrongly, and that much of what has been supposed variable, and for scientific purposes worthless, really falls on the other side of the line.

Hence the rise of the great school of the Dissatisfied Economists, among whom we must reckon Tooke, Fullerton, the younger Mill, Thornton, Bonamy Price, R. H. Patterson, Cliffe Leslie, and a host of others in England, together with Laveleye, Bastiat, and the *Kathedersocialisten* on the Continent. No better statement of the nature and the value of this wide-spread protest than that from Laveleye's pen, which we published, in Mr. Carpenter's excellent translation, two months ago; and also—we are forced to say—no more candid confession of the insufficiency of that protest and of the general shortcomings of the party, as scientific economists. We can imagine the old Goliath of orthodox economy smiling grimly on these new antagonists, as they come out to meet him with sling and stone, but without the faith that once made sling and stone efficacious. Like Ogniben in Browning's poem, "A Soul's Tragedy," old Goliath will mutter, "I have seen four-and-twenty leaders of revolt." Such protests as these there have been from the beginning.

Sismondi and his sentimental school, for instance, made a very vigorous one, denouncing the whole modern system of divided and organized labor, of the factory and machinery system, as wrong and monstrous. Orthodox economy took their scalps, metaphorically speaking, and uses them to this day as a scare-crow. It teaches its young disciples to scoff at any historical criticism of its opinions as coming from "the sentimental school." An amusing illustration of this we had a couple of years ago in a clever review of our article on the "Teutonic Mark," in which a graduate of we know not what New England college, took to task the conclusions reached by hard-headed, patient investigators like Nasse and Von Maurer, as "sentimental political economy." So, by a trick not unknown in theological controversy, orthodox economy is provided with a host of old names for new beliefs, and still uses the memory of her slaughtered victims to warn new aspirants of the "welcome with bloody hands to hospitable graves;" and perhaps the days will come when a man will slay his neighbor on the provocation of being called a *Kathedersocialist*, and the jury will find it "justifiable homicide."

We augur this failure from the spirit evinced by the new school, as well as from its doctrines. There is a painful lack of independence and backbone among the *Kathedersocialisten*, and a disposition to make practical concessions to the orthodox for the sake of recognition. Although, for instance, as M. de Laveye shows, their nationalist logic commits them to the rejection of the Free Trade dogmas, and they have given up every premise upon which Free Trade establishes itself, yet they are exceedingly careful not to offend by saying a word against the Free Trade policy. About a year ago a Protectionist resolution was actually adopted in the body which represented the Orthodox Economists of Germany, while the body which represents the *Kathedersocialisten* have avoided all such questions, and its friends anxiously explain that they are "not infected with Protectionism" either in Germany or Italy. These anxieties, when brought into relation to their logical reasonings, show a practical weakness, a fatal lack of the *stamina vite* among them. We are reminded of Emerson's complaint that the Unitarians of Massachusetts were so dreadfully vexed at their excommunication by the orthodox churches, whereas a true and living church would have paid no attention whatever to such fulminations. And it suggests his verdict that such things are like homeopathy, social-

ism, etc., very admirable criticisms upon what is received and established, and yet very poor pretenses in themselves.

"Nothing is destroyed, till it is replaced," Comte says. That this new Economy cannot replace the old, is evident on the very surface of things. It does not even claim the completeness and independence of a science; its whole vitality is derived from its critical attitude. Overthrow the Orthodox Economy, and this other must perish with it, as the shadow with its substance, or the ivy with the edifice to which it clings. Nothing in that case would be left for it, but the insane business of going on forever assesting the exceptions which qualify the rules, after the rules themselves had been given up. Its fragmentary teachings have as yet no unity save in their antagonism to what has unity, and they must be found incoherent when they have no longer anything to fight.

A still more weighty objection to the new Economy is that it is *arrière*: it is mere antagonism and criticism, brought forward at a time when the work of destruction is fairly over, and the work of construction upon a higher platform has begun. Much of what it says is the mere rehash of the objections of the sentimentalists; much more is borrowed from Fourier and the socialists; and even the nationalist school of List and his compeers have been followed in places, while the whole body of their teachings is in advance of that of these new Economists. The political side of their theory is merely the old doctrine of the positive and the traditional, with which Burke fought the French Revolution; and all the more advanced political thinking, which starts from the organic conception of the State, is entirely ignored, at least in M. de Laveleye's statement of their views. In this and in some other points we may be doing them the injustice of accepting a very brief and compressed statement of the case as complete and sufficient; but our high opinion of our Belgian's power of statement is our justification. We have always found him measured, judicious and careful; and we must add that if he has here failed to state in an adequate way the positions of his friends, he has never given his opponents any such reason of complaint.

Now this merely critical attitude, while itself in the highest degree necessary and useful, really carries us not a step farther; nay, it generally expresses itself in antagonisms so sweeping as to involve both the truth and the error of the doctrines assailed in the same

condemnation. The free-thinking, for instance, that during the whole of last century waged an endless warfare upon the doctrines of positive religion, was not without its justification in the incoherencies and ineptitudes of a theology which had lost vitality and movement. But not even the free-thinkers of to-day would give their sanction to the assaults thus made, or would hesitate to say that it would have been a misfortune if the assaults thus made on Christianity had succeeded, and the Bible had been assigned to the limbo of popular contempt. And thoughtful men would now pretty much agree that the questions thus raised have been carried forward toward a true solution by those who, like Wesley and Simeon, raised the practical life of the Church to a higher plane, and by those who, like Coleridge and Schleiermacher, infused a more profound thoughtfulness into its theology. And in like manner our dissatisfied Economists, as long as they maintain a merely negative attitude towards the Orthodox Economy, will be found to assail its truth as well as its errors, and to take not a single step in real advance toward the replacement of its system by something better.

Take for instance the truth represented by the notion of what is *natural* in the old Economy. It is very easy to point out absurdities which are involved in that notion, and to show its relation to exploded theories, as Cliffe Leslie has done. No doubt even great books carry the flavor of their age, and the notions of the last century have made their mark on Adam Smith's *Inquiry* as decidedly if not so clearly as in the *Nouvelle Heloise* and the *Emile*. But was there not a relative truth in those notions, a truth with which the economist of all men can least afford to dispense—a truth which that age painfully acquired in order that it might become a part of the heritage of all the ages that were to follow it? Under all these confused notions about natural law lies the common truth that there is, as Butler has said, a "constitution and course of nature" which man does not create or devise, but only discovers and confesses. From the eighteenth century our educational reformers learnt that truth in regard to the development of the individual mind, and were taught to search for the natural method of teaching, and to set aside what was merely conventional and artificial in inherited methods. Since Rousseau and Pestalozzi every plan of education has been required to vindicate its claims to be natural,—accordant with the nature of the development of a child's mind,—and we do not think

that any school of educators would willingly give up that criterion and go back to where we were before it was adopted. And so with the economists. Before Smith the notion which reappears in M. de Laveleye's essay was the dominant one,—the notion that “the foundation of the entire economical system among civilized nations is a code of laws framed by legislators, and that they can consequently be changed if necessary, and not a system of pretended immutable natural laws to which we must submit.” It is startling to be told at this late day that the old economists were right in holding that the world of industry and economic growth was the product of human will, and that the statesman as embodying the will of the nation could do anything he pleased—could make water run up hill if he were so disposed. Hence there was neither limit nor bound to the interference of legislation. The export of gold and silver was prohibited; their import was rewarded. The rate of wages and the price of food were fixed by law, and forestalling the market was visited by censures of Church and State. In one case a Scotch Presbytery laid a man under excommunication for shipping wheat out of Scotland. All industry was monopolized by chartered and privileged guilds, and even the great Colbert attempted to fix the standard of quality, etc., for every class of French merchandise. Smith's first message to such legislators was just this: “There is a constitution and course of nature in things economical. The statesman has to discover its laws, and to accommodate his own measures to them. The State that is so governed will prosper; the State that is otherwise governed must come to ruin.” That Smith or his followers made mistakes as to what those laws were, involves no deduction from the truth of his main proposition. That they thought that those laws did their work best through the efficacy of motives which bore upon the individual, and in the absence of all united and social action through the State, is very true; and it was a great mistake, as is shown firstly by the vast series of English laws for the protection of the working classes; and secondly, by the experience of every people of undeveloped industry who adopted the Let-alone policy as regards foreign trade. But that mistake was only the exaggeration of the truth from which they started, and which they failed to apply with the discretion with which it has been applied in other departments of human activity. A teacher who has taken to heart the lessons of Pestalozzi does not sit down and fold his hands

while he watches the child's mind developing itself from ignorance to knowledge; he merely adapts his teaching to the natural direction of mental growth,—and a statesman is put in trust with the direction of a still vaster process of growth. He knows that he does not and cannot supply the motive power of the process; that he is the *gubernator* or steersman merely. But he knows that much of the responsibility of the direction given to the nation's industrial growth rests upon him, and that he cannot rid himself of that responsibility by renouncing all activity in the matter. Not to act is to have acted, and in most cases to have acted wrongly. It is his business to have before him some ideal of the nation's industrial future, towards which he steers either directly or on the tack; to know by experience what are the seeming short cuts toward the end, which will really lead away from it; and to watch and guard against all the wrong tendencies which promise profit and prosperity to the individual, but which inflict injuries upon the community.

This statement, we think, unites both sides of the truth. It does full justice to the truth for which Smith and his school were contending, and which gave vitality even to their exaggerations. M. de Laveleye is quite right in maintaining that political economy is not, as Roscher said, merely the physiology of the body politic; that it is also the therapeutics. But with every step of progress in medical science we gain a clearer notion of therapeutics, and come more and more to recognize there a wise coöperation with nature, where once the doctor and the drug were supposed to work the cure without her coöperation. The new theory of therapeutics is capable of great abuses. Instances occur every day, in which the expectant treatment is carried so far as to sacrifice life to a theory. Unqualified Let-alone treatment is as bad in medicine as elsewhere, and yet all medical progress has been toward a qualified and judicious non-interference. The wisest therapeutics are analogous neither to English passivity nor to the old mercantilist meddlesomeness of the period before Adam Smith.

The new school call themselves the historical and the positive Economists, and some of them make a great display of historical learning in their treatises. They are taking in the field of economy the very position from which Burke waged a European war upon the French Revolution. But what was well enough in Burke is hopelessly out of date for the third quarter of the nineteenth century. In

an age when theorists of all sorts were ready to reconstruct the world according to a few general ideas, and when those theorists were, at the same time, the ablest, the most eloquent and the most popular of European writers and statesmen, a wholesome emphasis on the positive and the historical was both right and useful. But we have got beyond Burke. The principle that institutions and social methods are the outgrowth of the life of the people to whom they belong, and that we can only create a *hortus siccus* by any removal of these for the arbitrary substitution of others which seem more reasonable, has taken fast hold of the intellect of Europe. It was first formally stated by De Maistre, but it has found utterance in many and different quarters. It was one of the lessons inculcated by Hegel, and like many others that he taught, it has survived the formal overthrow of his school and his system. The whig Macaulay scoffs at Bentham for his ignorance of it; the Benthamite Mill, in his *Autobiography*, avows his full adhesion to it. Yes, we have got beyond Burke, and the crass antagonism of the natural and the historical, but not by denying the truth of either Burke's or Rousseau's position. We have reached, in the evolution of European thought, a higher truth, in which the two half-truths are *aufgehoben* in Hegel's sense of the word. (The old form, that is, is abolished, the inner substance is retained, and the whole is raised to a higher plane of thought.) We have come to see that there is not only a nature common to all mankind, but a character peculiar to each national branch of the race, and that political institutions cannot be conformed straightway to the general and simple ideas derived from the former, without doing violence to the latter. We have come to see that there is a sense in which what is historical is also natural, and to repudiate all the false antitheses made between the two elements. But at the same time we have come to know that there are elements common to all humanity, and to the vocation of all nations, as well as others that are peculiar to each people. And in this sphere we recognize the validity of such appeals to universal principles and to "the higher law," as were made by Rousseau.

Now the whole positive creed of the *Kathedersocialisten* seems to us little more than a rehearsal and repetition of the old Burkite arguments against the French Revolutionists. It is the old assertion of the sacredness of the positive and the historical, and its rightful immunity from all criticisms based on natural principles. "To invoke

liberty," they say, "is to be satisfied with mere words, for it is a question of right, of the civil code and the social organization." "The laws which govern the production, and still more the distribution of wealth, are very different in different countries and at different times." "The Civil Code at present determines the distribution of wealth in France." Does the sun rise and set, and do the tides ebb and flow in France, by the Civil Code? Does it fix wages and prices, determine good or bad harvests, and make *Credit Mobiliers* financial successes? Did French law keep John Law's paper money or the Revolutionary *Assignats* in circulation? Did it prevent the *Ateliers Nationaux* from giving us a practical refutation of socialism? How often has French law, like the law of other countries, thrown itself in the face of economic tendencies, and proved as powerless as Mrs. Partington sweeping back the Atlantic with a broom!

These new critics object to the selfishness, the optimism, the cosmopolitanism and the anti-Christian character of the orthodox economy. Let us see how far each of these is substantiated.

In charging *selfishness* on the Economists, their new critics are trenching somewhat on the arguments of the sentimentalists. Sismondi, Villeneuve-Bargemont and other writers made the most of this charge, and all the Socialist party since Fourier have never ceased to harp on this string. We all know what answer will be made. It will be said, "We are not concerned with the morality of these motives. We find men engaged with a certain degree of uniformity in the acquisition of wealth. We find that activity so common to all men, that every class of theorists treat it as constant and universal. We find society staring when Agassiz says he has no time for making money. *You* may assume the best motive you please for their conduct. *We* take men as we find them."

But we think that very much if not the most of this activity has its root in motives which are unselfish. Gruff old Sam. Johnson used to say that men were seldom more innocently employed than in making money; and the farther we look below the surface, the more truth we see in this saying. Men toil and sweat for wife and child, far more generally than for themselves. They are, after all, members of families, and that family life is a mainspring of business energy. They sacrifice ease and enjoyment that their wives and daughters may have the things needed to maintain their social posi-

tion, and that their sons may be better educated and may get a better start in life than themselves. A thoroughly selfish community would be a thoroughly idle community—a city of Lazzaroni. But we take account of only the apparent motives in our moral estimate of industrial communities; we see the branches and stems of the forest, but rarely its roots.

Not that this collision of family interests may not do as much mischief as if it were merely the collision of purely personal and selfish interests. Even for the larger interests of the state, and in the name of patriotism, men do things which are in themselves indefensible, and which are only saved from unqualified reprobation by the halo of devotion that surrounds them. And in exactly the same spirit and with the same short-sightedness, men will sacrifice other households for the supposed interests of their own. It is not therefore necessary to stamp the industrial competitions and conflicts of the business world as purely selfish, in order to establish the necessity of bringing them under regulations which compel the sacrifice of immediate interests to the good of the community. It is quite possible to see reason why the State should step in to regulate the hours and conditions of labor, the provisions for health, and the like, without assuming that the industrial world is nothing but a collision of greedy atoms, each of them inspired by no nobler purpose than bare, unmitigated selfishness. Were this selfish and atomic theory of society the true one, no such regulations would be possible, because no public opinion would exist to give force and validity to the legislation of the State. And for the same reason no mercantile morality and no credit system would be possible, because no one could or would permanently withstand the temptation to wrongdoing, if he had nothing to control him but a wise self-interest. Other considerations of course have their due weight in influencing men in the right direction; for instance, the force of Christian principle and of an enlightened conscience does exert a great influence which may be fully active in the case of men who are but slightly bound by social ties. But that the great majority of our business men are honest up to their light, and if they do wrong do it more from want of thought than want of heart, is due chiefly to the fact that they are sons, brothers, lovers, husbands and fathers, and are thus bound by a public opinion that calls for higher and purer motives than mere selfishness. "Molly," said a Massachusetts legis-

lator to his wife, "which would you rather I would bring you home to-night, fifty thousand dollars or an honest husband?" "An honest husband, John," was the answer; and while there are women so entangled in the love of fashion and display that they would give and have given the other answer, it is quite certain that "Molly" was a fair representative of American wives.

The charge of *optimism* upon the English school they would probably repel with much more vigor. They might plead the whole tenor and scope of their teachings, from the chief corner-stone of the system laid by Ricardo up to its highest cope-stone, in refutation of such a charge. Optimism indeed!—if this be Optimism, what would economic Pessimism be? If Schopenhauer and Von Hartmann had been economists, what could they have given us worse than Malthus's "Law of Population," Ricardo's "Theory of Rent," the doctrine of the "Wage Fund," and of the natural necessity of low wages, and to sum up all, Mill's theory that progress and civilization are exceptional and temporary, while the pressure of population upon subsistence is and must be the constant and the permanent fact. If our memory serve us aright, Schopenhauer, in his *Parerga und Paralipomena*, does actually appeal to the orthodox economists as vouchers for his view that this is the worst of all possible worlds, and that existence in such an order of things is *the* curse of humanity. If he does not, he well might have done so. He would only have anticipated the French and German socialists, who appeal to the same Economists as vouchers for the less extreme position that the existing order and framework of society is hopelessly and irretrievably bad, and that its complete overthrow and reconstruction on opposite principles are necessary unless "the most numerous class, that is, the poorest," are forever to be crushed under poverty and misery.

No; passivity is not optimism. The Turk is not an optimist, when he sits down before his burning house and says *Kismet*. The vast and lethargic populations of the East are not optimists; they are passivists, but to them as to Schopenhauer this is the worst of all possible worlds, and the only salvation is the escape out of existence into Nirvana. Pessimism, more than any other belief, cuts the sinews of effort. Europe is "saved by hope" from being a Thibet, a China, an India. Orthodox political economy, in its effort to discourage the activity of the State in the sphere of econ-

omy, has heaped up a series of doctrines which are in their substance and their tendencies not far short of pessimism.

More to the point and more unanswerable is the charge of *cosmopolitanism*. But we fear it is only an objection and not a conviction, not a principle with this new party. They do not grasp it with the vigor shown by Fichte, List, and the truly nationalist school of Economists. So long as they disbelieve the existence of a constitution and course of nature in things economical, they cannot and dare not accept the nationalist principle as fundamental. For men who hold that the foundation of political economy is positive law, and that the legislature is capable of reconstructing the whole edifice from the foundation, to make the nation's growth and development towards any specific ideal their great central aim, would be to tell the nation that it is capable of a feat which would correspond to getting into a basket and lifting one's self up by the handles. Only those who honestly accept the objective validity of economic laws as heartily as did Adam Smith or any of his school, can claim for the nation and its collective life the right to the economist's first thought; and they do so by maintaining that the nation is an industrial organism as well as a political organism, and that between its various industrial classes there exists the same sort of harmony of interests as between the members of a living body. M. de Laveleye "discovers in political economy but one natural law—that is, that man, in order to live, must support himself. Everything else is governed by manners, customs, laws, which are continually modified according as justice and morality extend their empire, departing further and further from the order of nature, where force and chance reign." But this "one law" is just the old law of selfish antagonism, with its consequent struggle of human atoms for a share of the world's good things. Now, as we have already said, society cannot even exist if that be its only or even its dominant law. If there are nothing but repulsions at work among its elements, they must fly asunder; no amount of repulsions will ever generate or culminate in an attractive force to bind them to each other. There must be something else at work in the world—something that deserves the name of *law* as thoroughly as does the Newtonian law of attraction. It may not be a "natural law;" in the sense in which the word natural is often used, as contrasted with what is spiritual, no doubt it is not a natural law. But in other and better senses of a word

that has many senses, it is preëminently a natural law—one that is characteristic of human nature, and is its very glory. There are many names for it, but we think it is best designated by the phrase “law of organic interdependence.” Paul first enunciated it as a law of social organization, applying it to the Church. Later thinkers have applied it to the body politic; but it is the glory of Henry C. Carey that he was the first economist who applied it with scientific precision and thoroughness to the State regarded as an industrial unit.

How great the need of such a master conception may be seen from M. de Laveleye's own statement of the views of his friends. “The manufacturer,” he says, “desires that wages should fall, and the workman that they should rise. The landlord desires to raise the rent, and the tenant to lower it. Everywhere the strongest or the ablest triumphs.” And this is their last word as to the superficial and mistaken antagonisms which distract society, by leading these classes to regard their interests as mutually hostile. Is the statement true for any great period of natural industrial growth? It cannot be. What each party wishes, each in the long run gets, not at the expense of the other. For they do not really desire things which are in the long run inconsistent with each other. It is not lower wages that the capitalist desires, any more than the workman aims at lowering profits; it is higher profits on his investments. It is not lower rents that the tenant aims at, but larger returns for his labor and his capital. So long as the capitalist thinks he can profit only at the expense of his workmen, or the workmen that they can profit only at the expense of the capitalist, an immoral antagonism of feeling will prevail between them. But the history of labor tells us of the steady gain for both, and warns the capitalist especially that “low-priced labor is generally the dearest;” while it shows the working class that if the capitalist gains by arithmetical increment as centuries roll by, the working classes gain by a geometrical ratio. Similar is the history of land and rent; a given area of English soil pays to its owner a far larger quantity of wheat in rent, than it did in centuries past; but the tenant's profits have advanced far more rapidly than those of his landlord. As Adam Smith first pointed out, in feudal times the English landlord had a right to pretty much the whole crop, and what he left the villein was of his own good pleasure. But when Smith wrote he got but a third or a fourth of

the whole crop, and yet received three or four times as much as it had been in the Middle Ages. He obtains a constantly increasing quantity and a constantly diminishing ratio or share.

It is this law of organic interdependence, or of the harmony of interests, that Nationalist Economists regard as the real foundation of economic science. And as humanity is not organically united on its industrial side, those who accept this law are necessarily nationalists. They find one nation continually interfering with the growth of another, and standing in its way. They find in different nations very different degrees of industrial life and development; which mark them as organically distinct, for every part of an organism in its normal state shares in the same degree of development. And on the other hand they find that the areas providentially sundered from others as the predestined homes of the nations, are capable of supplying each its own people with all things necessary for an independent existence; and they see that the peoples which occupy these areas do each possess a certain equality of industrial capacity within their own boundaries, except where some great disease of the body politic, such as slavery, has produced an abnormal condition of things by preventing an equal advance. And for this reason they set before them the maximum of industrial life in each nation as the true aim of its national economy, holding that each nation is an economic organism, and that the law of organic interdependence binds its various classes in bonds of mutual helpfulness. To remove all restrictions on the freest play and circulation of all the vital forces within the body economic, they accept as the only wise policy. They are generally characterized, for instance, by a decided hostility to all those laws of restriction and limitation imposed upon the monetary circulation in most countries, not excepting that which boasts most freely of its free trade principles. But they do not regard this great end as attainable by any passive policy. The freedom of movement, for instance, in the labor market, is greatly checked by popular ignorance. The uneducated man finds it hard to believe that "there are people too behind the mountains." The Wiltshire and Dorsetshire boor does not press northward to earn the better wages of Lancashire and Yorkshire. A great system of public education is therefore needed to bring the community up to a certain average of intelligence, so that each human unit may have the chance to do the best possible for himself and his house-

hold. For similar reasons the Nationalists regard a national post-office, a national road, canal and railroad system, and other internal improvements, as proper objects of government activity. And finding that freedom of circulation within the body is in most cases impeded by a want of a whole, sound cuticle to bound and contain it, they see no inconsistency in proposing such restrictions upon foreign trade as will bring its domestic industries forward to completeness and equilibrium. They would restrict foreign trade in order that home trade might be free and abundant. They would fulfil the great law of organic interdependence by pursuing the policy which tends to bring the members of the body into the position of mutual helpfulness. As to foreign trade between civilized peoples, they regard that only as natural and normal which moves along the meridians, and serves for the interchange of the products of different climates.

It is this position that brings the party of Fichte, List and Carey into a thorough antagonism to the English school. They hold with Coleridge that "the entire tendency of the Malthusian political economy is to denationalize. It would dig up the charcoal foundations of the temple of Ephesus, to burn as fuel for a steam engine!" . . . "The cosmopolitanism which does not spring out of and blossom upon the deep-rooted stem of nationality or patriotism, is a spurious and rotten growth." And, as we have said, they are as little satisfied on this head with the *Kathedersocialisten*, as with the objects of their rather lame criticism.

It is with hesitation that we approach the last of the objections we have enumerated—that English political economy contradicts the doctrines of Christianity as to the radical evil of human nature. It is too much the fashion of our political and economic writers to discuss the world of their thoughts and theories, as if it touched at no point on that other world to which human aspirations have in all lands and at all times gone forth. There is even a prejudice against the other course of discussion, as if it were meant not to bring any new light, but merely to increase the confusions which already exist. Yet the other course, the course so frankly adopted by M. de Lavéleye, is continually found unavoidable. As Proudhon says, men never go below the surface of political questions, without finding themselves busied with theological questions; and with Proudhon agree not only the great conservative politicians, such as Burke, De

Maistre, De Benald, Coleridge, Hegel, Bluntschli, Stahl and Savigny, but also such radicals as Fichte, Saint Simon, Mazzini, Castelar, Quinet, Laurent and Hugo. Yet it is with a shrinking which perhaps deserves censure as cowardice, that we approach the subject, heartily as we agree with Proudhon and Mazzini.

M. de Laveleye's theology, however, seems to us more dangerous and erroneous than his political economy. He apprehends the doctrine of divine grace, as taught by Christianity, in a mechanical way, which perverts a great truth into a dangerous error. He has plenty of authorities among the theologians for so doing, but no matter for that. "According to Christianity," he says, "man is so radically bad that it requires the direct intervention of God and the constant operation of His grace to keep him in the right way and to save him." This is true in a sense, but not the sense that is meant; for the true sense of these words would have no force in our author's argument. He evidently looks on grace as a something *ab extra*, which takes hold of us like a policeman and makes us walk straight against our wills, and without our wickedness and selfishness being in the least overcome by it. He identifies the evil nature in man with the man himself, and regards grace as restraining but not changing it. He accepts the fall as the law of man's life, and grace as the artificial exception to the law. He has the sanction, not of Paul, nor of Augustine, nor of Luther, nor of Calvin, but of a great host of modern Calvinists, who have learnt the lessons of the eighteenth century, and confound them with the earlier lessons of the Apostle and his great expositors.

But the Christian doctrine of grace is that God has never consented that the fall should become the law of any man's life, and that He is ceaselessly calling forth and quickening in men a higher and a better nature, which is at war with all selfish and grovelling propensities. His grace makes His children "a willing people in the day of His power." It manifests itself not in the man in restraint, but in him in the inmost centre and spring of his life. And therefore, while ascribing all that is good in man to divine grace, Christianity does not teach us that even the worst of men are in fact devoid of a better nature and better impulses. It does not say with the selfish philosophers, that men are devils, but that without God's grace they might become such.

Manifestly this doctrine does not give any theorists on either side

of the question much ground of partisan appeal. It falls so completely into agreement with all that experience teaches us as to human nature, that any one can make out as fair an argument from experience as from Christianity. And in this, we think, Christians will rejoice, as it puts in so far a period to unseemly disputing over the most sacred truths.

We have not touched on all the points made in M. de Laveleye's most interesting paper, but we have omitted some of the principal. With many of his criticisms on the English school, we are thoroughly at war with him, and we are astonished at being obliged to say so much in their defence. But we do maintain with them, in opposition to their continental critics, that there is a science of economy, that it is a science whose function is to master laws common to both nature and human nature, and that all true economic progress, like all true political progress, is toward freedom.

ROBERT ELLIS THOMPSON.

NEW BOOKS.

JONAH, THE SELF-WILLED PROPHET.—A Practical Exposition of the Book of Jonah, together with a Translation and Exegetical Notes. By [Rev.] Stuart Mitchell. Pp. 247. 12mo. Philadelphia: Claxton, Remsen & Haffelfinger.

THE BOOK OF THE PROPHET ISAIAH; with Introduction, Commentary and Critical Notes, by Rev. W. Kay, D. D., and the Book of the Prophet Jeremiah, and his Lamentations; with Introduction, Commentary and Critical Notes, by R. Payne Smith, D. D., (being Vol. V. of The Holy Bible, according to the authorized Version, with an Explanatory and Critical Commentary, and a Revisal of the Translation, by Bishops and other Clergy of the Anglican Church. Edited by Rev. F. C. Cook, Canon of Exeter.) Pp. 606. Lexicon octavo. New York: Scribner, Armstrong & Co.

These two volumes, differing in their size and style, as also in the nationality and the ecclesiastical affiliations of their authors, are yet books of strictly the same class,—half scientific, half popular commentaries upon Hebrew prophets for English readers. They mark the new and vigorous interest in the Bible which characterizes these days, and which has led to the publication of more works designed to explain and illustrate it, than ever appeared at any other period of the Church's history. Very few works on systematic theology

are now produced in England and America ; comparatively few on ecclesiastical history. But the fertility of the expositors and the translators of expositions compensates for this deficiency. This is owing, we think, very largely to the extension of Sunday-Schools, and the consequent demand for biblical apparatus on the part of the teachers. It is partly owing also, no doubt, to the controversies raised in regard to the authenticity and genuineness of the books of the Bible, which have spread from Germany into England. Canon Cook's commentary, for instance, was begun at the time of the agitation over Bishop Colenso's assault on the Pentateuch, and is commonly known as "the Speaker's commentary," because the Speaker of the House of Commons presided at the meetings which decided on its preparation, and made the arrangements. A third cause of the growth of exegetical literature is in the reform of the pulpit and its methods. There probably never were so many good preachers as there are at present, and every fitting source of intelligent interest is freely used by them. Instead of the old logically constructed sermon, with its heads and tails, exordium and peroration, conclusions for use and conclusions for doctrine, there is an almost total freedom from conventional arrangement, and a growth of the homiletic method into a new popularity. Thus sermons grow into books of exegesis, as Mr. Stuart Mitchell's on Jonah have, and sermons excite the interest in the subject, which leads men to buy and to read commentaries.

Commentaries of the sort to which these two belong labor under the disadvantage of exactly suiting neither the learned nor the unlearned. Each class get too little of what they especially want ; and too much of other matter. Even in Germany this is felt to be a very troublesome feature in such commentaries, and some writers—like Rudolph Stier, have for this reason reduplicated their commentaries, by making a separate book for each class of readers. Others publish their learned exegesis separate from the bulk of the book, and only for those who desire it, the rest being complete in itself. Mr. Mitchell has made a very strict separation of the two elements, confining the learned notes to the pages which immediately follow the revised translation, and devoting the bulk of the book to a series of homiletical expositions suited to all capacities. We should infer from these that Mr. Mitchell is a vigorous and interesting preacher, a man of strong convictions and decided speech. His theology is not variegated moonshine and pretty pettiness of thought and phrase ; it is the theology of the Covenanters and of the Puritans. We do not say so as unqualified praise : a theology which takes tone from the spirit of our own age, and measures its conclusions by current opinions, is to our minds, as to Mr. Mitchell's, a very poor affair ; but when a theology which takes tone from the spirit of the seventeenth century, and measures its opinions by the conclusions of that more vigorous age, is set over against the former, there is

something to be said on *both* sides. And if there is no Spirit of all ages to reconcile these partial views, and lead us into truth larger than either, then the history of theology is to be forever a miserable squabble between old and new, with no chance or prospect of unity, instead of a wise bringing forth out of the treasure things old and new. Mr. Mitchell's book, in all its theological substance, belongs to the past; there is nothing new in it, save more vigorous statement and fresh illustration of conclusions which had already been reached when the Westminster Assembly met. And he is a type of a very large class of modern theologians, who think that no change or advance is needed, except in the manner, style and tone of the modern churches.

Considered as a work of exposition, Mr. Mitchell's book is rather above the average of such books. All the details are handled with judgment and with learning. There is a freedom from platitudes, and from wordiness, which is excellent. But in grasping the whole purpose and compass of the book, we think he comes short of the mark. Jonah is a very remarkable piece of writing, and a very bold man he must have been that wrote it. There is no such rebuke of the narrow and Pharisaic notion of God's kingdom, as entertained by the Jews in later times, to be found anywhere, except in some of the Parables of Christ and the Epistle to the Romans. All that is narrow and bitter in the Jewish people seems to be condensed to its quintessence in this bilious prophet; his state of mind is exactly that of the older son in that Parable, which we call the Parable of the Prodigal Son, but is really the Parable of the other son. That parable, we do not hesitate to say, is the masterpiece of all literature; and one of its finest touches is the abruptness of its close—divine and fatherly mercy pleading with human stupidity and respectability for sympathy. And how like to it is the close of Jonah, save that the prophet's surly but manly "Yea, I do well!" carries us just one step farther ere the curtain drops on the representative of Jewish exclusiveness and bigotry. Mr. Mitchell does not see any such meaning in the book; chiefly—we think—because he was looking everywhere for lessons and warnings to a class of persons entirely different from those at whom the book was aimed.

Dr. Hay's commentary on Isaiah, and Dr. Smith's on Jeremiah, are the productions of men who represent very different schools in the Church of England, and of men who differ in a very marked way as regards their mental idiosyncrasies. They are both scholars, men of learning and of patience, if not of great insight and critical divination. What their actual gifts are capable of achieving, they have achieved, each in his own way. Dr. Kay possesses much patristic and rabbinical scholarship, and uses it judiciously. He is a severe traditionalist, and has no craving for new conclusions, nor even for new sources of knowledge. He rejects the light cast on the period of Isaiah by the decipherment of the cuneiform inscriptions, as

utterly uncertain, pleading the contradictory interpretations of different decipherers. In this he has the sanction of nearly all the scholarship of Germany, and even of such an impartial critic as Marcus Niebuhr, the worthy son of the Historian of Rome. Only in England and in France have Assyrian studies attained general recognition as a basis of historical reconstructions. We think, however, that Dr. Kay has lost more than he has gained by this proceeding, if his object be to bring home to his readers the reality of Isaiah's life and mission, and the lessons it conveys to us. The concession that the decipherment is trustworthy, might, indeed, carry with it some admissions as to the literal accuracy of some of the predictions. We think that between the literalists and the negativists, the prophets suffer about equally on either hand. And it is curious that the same passage is sometimes a stumbling stone for them both. For instance, in the famous prediction (chap. x., v. 28, etc.) in which Isaiah depicts the eager and hasty march of the Assyrians upon Jerusalem, he describes them as leaving the ordinary road to take a short cut across deep *wadys* and nearly impassable defiles. Now, if the prophesy had been written after the event, as one party asserts of nearly all the prophecies, no such route would have been described, for none such was pursued. And if the prophets were gifted with the arbitrary power of literal prediction, beyond and farther than a divinely given insight into the great principles which underlie and determine the historic movement of the world, this inaccuracy would have been equally avoided. But from the true point of view, the passage is devoid of all difficulty; the language it employs is simply the strong, fervent language of passionate warning, by which Isaiah would awaken his people to the fierce and relentless character of their dangerous enemy in the East.

On the controversy, started last century by Koppe, as to the unity of authorship, Dr. Kay opposes himself to the great preponderance of critical authority in maintaining that Isaiah wrote not only the greater part of the first forty chapters, but the whole sixty-six. We think the conclusion is correct, but for very different reasons from those that he urges. Every prophesy has its own local atmosphere; and such a thing as counterfeiting or inventing this is unknown to ancient literature. Now the horizon of the last twenty-six chapters, as well as of the whole book, is that of Palestine; never that of the land of the captivity, in which the negative school find their Deutero-Isaiah, their Great Unkown. Her vineyards, and cornfields, and threshing-floors, are the mental furniture of the prophet. He has never seen, and he belongs to a people who have never seen, the things that suggest the imagery of Ezekiel and Daniel. We admit the force of the difficulty presented by the mention of Cyrus. The prophet was no utterer of oracles; he was a practical teacher, speaking to men of his own times, in language which ought to be intelligible to those who heard him, and which only the hardness of

their hearts should have made meaningless to them. Therefore we are puzzled at finding him apparently specifying the name of a deliverer, who lived nearly two centuries after his era. Solutions have been offered, as for instance that of Möller and Strachey, that for Koresh or Cyrus, we should read Kadosh or Holy One, the only difference being the exchange of two Hebrew letters which are exceedingly like each other. Others suggest that Cyrus was like Pharaoh, the generic name of the Persian Kings, and that the overthrow of the great idolatrous power of the Euphrates valley by the vigorous idol-hating Aryans of the mountains beyond the valley might have been foreseen by a man of divine insight, and might have been both intelligible and comforting to a nation of idol-haters who were already trembling before the threatenings of Assyria. These solutions may not be satisfactory; some other and better may or may not be offered. But we can neither give up the true conception of the Hebrew prophet nor the unity of the works of the greatest.

In Jeremiah Dr. Payne Smith has even a more difficult task than Dr. Kay had in Isaiah. Few prophets deserve so much study, and few display so fully the workings of a human heart under the divine education which made the man a prophet. Few offer such difficulties to those who hold any of those mechanical and pagan theories of inspiration, which pass for orthodox with the religious world, and which rest on a bald antithesis of divine and human. While Ezekiel is the Milton, and Isaiah the Wordsworth plus Burns of the prophets, Jeremiah is now Cowper, now Tennyson. His is a sensitive and shrinking nature, shaken to its very core by the stern message he is sent to bear. That men saw both Elijah and Jeremiah in Christ—both the sternest and the tenderest of the prophets—shows how rounded and complete a nature was there. Our commentator is fairly alive to all this, and there is more freshness and warmth of life in his work than in Dr. Kay's. There is also a fuller acquaintance with the results of modern critical investigation, and a greater readiness to receive suggestions from it. Dr. Payne Smith definitely accepts the cuneiform decipherments as settled and authoritative, a disagreement of Doctors which reads rather funnily in two works bound up in the same volume, and revised by a common editor.

We observe that both expositions have been very unfavorably criticised by English reviewers, but mostly because the standpoint occupied by their authors did not coincide with those of the reviewers. But we think that a more candid catholic view of the subject will lead to the conclusion that they are the best works of their class on the subject that have appeared in English. We say of their class, for they do not fairly come into comparison with commentaries meant for scholars only. On the other hand, we think that the pith of these books is given much more clearly in the compass of a few sermons in Maurice's *Prophets and Kings*, and that Sir Edward Strachey's *Hebrew Politics in the Times of Sargon and Sennacherib*

is incomparable as a commentary on the political meaning of the Book of Isaiah.
J. D.

AMONG MY BOOKS, by James Russell Lowell ; Second Series, Boston : James R. Osgood & Co., 1876.

The second series of "Professor" Lowell's essays is, if possible, better than the first, for it is of a somewhat higher and purer tone of literature, and it carries the discussion of books and authors into the very worthiest form of criticism. Philology and history go hand in hand in the masterly study of Dante. The place of Wordsworth in literature is well fixed, thanks, in great part, to the labor of Henry Reed, whose recognition of Wordsworth's genius is now fully acknowledged as doing honor to the purity of literary taste here, and that at a time when, even in England, there was little feeling for the works of the great poet of nature. Mr. Lowell's sharp discussion of Masson's *Life of Milton* is hardly in place, by the side of his other and worthier subjects ; but it is, perhaps, too much to expect a just rebuff such as Lowell gives Masson, to be allowed to die with the journal in which it first appeared. The brief notice of Keats is full of tender sympathy and hearty appreciation, and the sneer at Lord Houghton's snobbery is well turned and was, no doubt, well timed, but why give it the importance of a permanent place in a volume of collected essays? The only possible suggestion of a fault with this volume, is that it ought to have gone through a little more revision of this kind, so that the traces of the earlier uses to which these essays have been put might be thoroughly obliterated ; but after all, one need not regret in reading Lowell's Dante, to find that it has evidently served as the basis of a series of lectures, perhaps, to the students of Harvard, perhaps to those at Cornell, perhaps to both, and certainly it gives a very sensible increase of reverence alike for the teacher and the pupils, when we find that there is so much in the lesson that deserves the study of the public at large. Lowell's genius, with its nice judgment of good and bad poetry, its sympathy for what is good and true and honest, its capacity to distinguish the merely mechanical excellence of composition from the higher claims of force and originality, is especially fitted for just the sort of criticism that is found in this volume, impersonal, but of a thoroughness that shows how large a field is yet left for all who study literature in its best sense. Between Lowell's earliest essays—the *Conversations on Poetry*—a book almost out of print and so inaccessible that possibly we have miscalled the title—and these latest volumes, "Among my Books," is a long cycle of years, filled with the production of work that has given Lowell the very first rank among American poets, and a very advanced place among authors in English ; but he has perhaps done few things that are likely, if rightly used, to be so useful in teaching the right use of books, the real

love of literature, as these collections of his own critical studies. Perhaps it would add to their bibliographical value, if we were told when and where each essay was first used and printed, for the oftener it was brought home to eager listeners and attentive readers, the better the chance of their being brought to the rational study of good books. No mere philology, no nice comparison of styles, no profound discussion of doubtful points of literary history, no purely chronological table of authors, can do as much to inspire a love of real study, as the diligent use of just such essays as these of Lowell's, "Among my Books."

ST. GEORGE AND ST. MICHAEL. A Novel by George MacDonald, author of "Wilfred Cumbermede," "Annals of a Quiet Neighborhood," etc. New York: J. B. Ford & Co.

There is a healthy and vigorous tone about all George MacDonald's books. They are to the mind what a breath of pure air from Scottish moors or Alpine peaks is to the bodily frame. And as this is more than a mere supply of healthy nourishment to the lungs, as it imparts an indescribable exhilaration, and elevates to a higher plane of physical well being, so our mental and moral nature is strengthened and ennobled by intercourse with his men and women.

The plot of *St. George and St. Michael* is simple. Richard Heywood and Dorothy Vaughan, who have grown up together from children and come to love one another without knowing it, take opposite sides in the struggle between Charles I. and the Parliament. "St. George for merrie England," the girl cries defiantly to her lover. "St. Michael for the truth," he answers firmly, and so they separate, each with high-souled steadfastness pursuing what they believe the right, until they are brought to comprehend that devotion to a chosen cause need not create between them an impassable gulf, but may be even a ground of sympathy, though the cause of each be different. They learn at last that "any two persons acting faithfully upon opposite convictions are divided but by a bowing wall." Left alone by her mother's death, Dorothy seeks refuge in Raglan castle, whose lord, the Marquis of Worcester, a staunch loyalist, was of kin to her, though remote: Richard buckles on his armor and joins the Parliamentary army. The interest culminates when Dorothy discovers her lover on the point of carrying out of the castle by night his favorite mare, which had been stolen from him by Dorothy's cousin, Rowland Scudamore, the Marquis' cup-bearer. Determined to recover his favorite, he had made his way in, and would have gotten out safely with his horse, but that Dorothy saw, recognized him, and gave the alarm. He is brought before the Marquis for examination; Dorothy is present, and the scene that follows is one of the finest in the whole book. Wounded, and securely confined, as his captors im-

agine, under lock and key, he does yet contrive the same night to escape.

This incident well illustrates the character of both hero and heroine; unswerving in determination in the performance of duty, be the consequences what they may, is equally the characteristic of each. Each has energy to do, fortitude to endure. In truth, they are so much alike, that it is not strange that they should have quarrelled; nor, perhaps, that they should have understood and sympathized with one another, notwithstanding the saying that we can least endure our own faults in others. We must, however, confess that Mistress Dorothy has overmuch primness and severity for a girl of only seventeen; at the opening of the story, there does not seem to be a particle of mirth in her. A little more girlish "abandon" would set out in strong relief her grand qualities. It is a gallant and goodly company, that in Raglan Castle. The grand old Marquis of Worcester; his son Lord Herbert, *one* of the early inventors of the steam engine, by means of which he supplies the castle with water; his wife, Lady Margaret, and a host of minor personages, not more various than those who make up the world of each of us to-day, are depicted with that vigor of delineation and knowledge of the workings of the human mind, which constitutes, in our opinion, one of MacDonald's chief merits. Scattered through this book, (as in others,) are many beautiful sentiments and delicate touches of description, not unmixed with humor. There is still extant at the present day, a class of "preachers of the truth," who excel in calling hard names, to the comfort of those hearers whose minds, being too feeble to grasp the arguments, can yet lay fast hold by memory upon the hard names, and thus "have it all in a nutshell." Very different is the Marquis' religious belief. Catholic as he is, he avows his conviction that heretics may be saved; "only be thou fully persuaded in thine own mind, Rowland, for if thou cared not, that were an evil thing indeed."

Interwoven with the narrative is a most lovely and touching episode. We do not think any author has ever told with more grace and tenderness the story of a child's life and death, than MacDonald has here done.

Little Molly is Lord Herbert and Lady Margaret's only child, the light of the household, the darling of the Marquis' old age. There is a subtle charm in her sayings and doings, which we feel, but cannot explain. The little flower blooms but for a time, and then the stern reaper takes it away to the garden of the Lord of Paradise. The old grandfather mourns calmly—soon, he knows, he will be reunited to his darling; the father goes forth to the tumult that rages around, and stifles his grief in work; but the desolate heart of the mother refuses to be comforted. Her husband brings her news of honors and offices bestowed on him by the king. "New dignity awoke suddenly the thought of the darling to whom titles

were but words." "I would I might have a kiss of my Molly," she cried, bursting into tears. But the wife is not forgotten in the mother; she cares not for the honors. "Do they not cost me thee, Herbert, and cost me very dear? Art not ever from my sight?" Lady Margaret well deserves our admiration; there is in her a strength and sweetness commingled which sometimes throws Dorothy a little in the shade.

To be thought in league with the Arch Enemy has happened to not a few inventors and philosophers; we are not, therefore, surprised that Lord Herbert should have been looked on with awe and dread, even among his own dependents. But we can pardon any one who had never seen nor heard of a steam engine for thinking, when first he beheld it, that the devil was in it, if indeed he did not create it. The Puritan's ghost, whom the poet represents as revisiting his ancient home by night, took a very opposite view, (a thing quite conceivable,) and thought he beheld the chariot of the Lord, as the express train thundered by. Lord Herbert is much more than an inventor, he is the guiding spirit of the king's party in that section of country; a most noble and admirable man. So fond of him is the author, that he often forgets, we suspect, that Richard Heywood has the right of place as hero. Between Lord Herbert and Dorothy there is a strong friendship, which would have made some wives, both in and out of fiction, very jealous; but Lady Margaret is too clear-sighted and too high-minded to feel a passion which takes possession of meaner souls.

MacDonald has a tenderness and sympathy for the weak, either in body or mind, and for all dumb animals, man's dependents and associates, which constantly appears in his writings.

The gentle treatment of the poor "mad laird" in "Malcolm," is a striking instance. So Dorothy clings to her savage mastiff, "whom" (as the author thinks he should write,) she can chastise, but no one else can touch; and Richard risks liberty, and even life, in the attempt to recover his favorite mare from the stronghold of the enemy.

Raglan castle and its neighborhood are the scene of nearly all the events narrated. Under our author's guidance we roam through its halls and courts, look forth from its battlements, and listen to all that goes on within its walls, till we come at last to feel as if we were at home there, and ready to join in the stubborn defence of the garrison against the Parliamentary troops who besiege it. Finally, when it is plain that all is in vain, the castle is surrendered, last of all the royal strongholds. The Marquis, broken with years and disease, goes to London, where in a mild captivity he ends with dignity and pathos a noble life.

There is still reserved for the reader one pang: Parliament orders the castle to be destroyed, and we read with sorrow and indignation of what befel it.

Among the ruins, fittingly enough, Richard and Dorothy meet and are reconciled.

ERSILIA. By the Author of "My Little Lady," Leisure Hour Series. Henry Holt & Co., New York.

We have here a story of the calf-love of the hero for his cousin, whose husband, a Russian Prince and the villain of the piece, has deserted her, and is supposed to have been drowned; but who turns up—as these fellows are sure to do in novels—just in time to prevent her from marrying a painter, under whose direction the hero is studying. As his appearance just then, instead of a few weeks later, saves his wife from committing bigamy, it seems rather hard that the artist should follow him about and stare at him in public until he cannot but object. This leads to an "unpleasantness," and the villain plants a fatal shot in the person of his wife's innocent admirer. She then goes into a decline, and dies. But her scoundrel husband does not wholly escape justice; he is married again to a very young woman, who cries easily, and neglects his shirt-buttons. He in turn dies, and a German Count reigns in his stead.

From the descriptions of male characters in this book, we should judge its author to be a woman. The style is generally smooth and even; it often suggests a familiarity with Miss Thackeray's writings, while the hero reminds us rather distinctly of Clive Newcome. The narrative purports to be an autobiography, but is written sometimes in the first person, oftener in the third; a transition which, unless made with great skill, and in such a way as to increase the realism of a story, is apt to puzzle the reader, and to weaken his interest.

There is nothing objectionable in "Ersilia," but we cannot see that it will do any good. It belongs to a very large class of works of fiction, which are all framed on much the same model, and can be read one after another by the practised novel-reader, as fast as they are turned out. They constitute a species of mental food which contains no poison, but is almost equally scanty in the matter of nutriment.

ANGOLA AND THE RIVER CONGO. By Joachim John Monteiro, Associate of the Royal School of Mines and Corresponding Member of the Zoölogical Society. With Map and Illustrations. New York: Macmillan & Co.

Mr. Monteiro is English, by nationality at least, if not by name. He spent many years, some fifteen or more, on the South-west coast of Africa, and has collected in this book the result of his observations. Intelligent and clear-sighted, possessed of considerable powers of observation and withal unprejudiced, he gives us not only many interesting facts, but his deductions, which are no less valuable. It may be fairly surmised that what he does not know

about the region of which he writes isn't worth knowing; his book is a cyclopedia of its history, government, geography, geology, and all the ologies.

Mr. Gradgrind would have delighted in it; but readers of less vigorous mental digestion sometimes suffer from a surfeit of facts, such for instance as the description of the "Marimba," the musical instrument, par excellence, of the natives of Angola, which "consists of a flat piece of wood generally hollowed out, and with a number of thin iron tongues secured on it by cross bits, but so as to allow them to be pulled out for the purpose of tuning. In front is affixed a wire, on which some glass beads are loosely strung when the instrument is played, which is done by holding it between both hands and twanging the tongues with the thumbs," &c., &c. A little of this sort of thing goes a great way, and unhappily there is a great deal of it.

By dint of judicious skipping there is much entertainment and advantage to be gotten from Mr. Monteiro. His book should be read by those interested in foreign missions, and with Baker and Anderson as adjuncts, they will get, perhaps, some new lights on the propriety of "efforts to ameliorate the assumed unhappy state of the much-pitied negro—who is lying in perfect enjoyment and nakedness under a magnificent sky, supplied by nature with food without any work or trouble, and insensible alike to physical suffering and hardship, or mental worry and vexation." "Our efforts to civilize the negro by purely missionary work, have been a signal failure." "I emphatically deny that a single native has been converted, otherwise than in name and outward appearance, to Christianity, or Christian morality." It is of no use to teach a class of little children to say like parrots, "I know dat I hab a soul, because I feel someting widin me," while the fetish house is still kept up in the village. Comment on these remarks will not add to their force.

"Fetish" is about equivalent to witchcraft, and is a word which may be said to designate the mass of superstitions which serve for a religion to the negroes. Anything they do not understand is "fetish." Some of their observances are very curious; probably the most so is the ordeal by drinking "casca," an infusion of a poisonous bark. According to the effect produced, of an emetic or a purgative, the accused is acquitted or convicted. Not the least remarkable fact about this custom is its resemblance to that described in the Old Testament. The natives of Angola, moreover, practice circumcision.

Mr. Monteiro thinks it impossible ever to reclaim the inhabitants of tropical Africa (so far at least as he knew it,) from "their horrid customs and their disregard for life." The unwholesome climate will not support a "higher type of mankind," and nothing less than "a total physical revolution" will fit it to do so.

Slavery as it exists in Africa, either among the natives or the Por-

tuguese, the writer thinks no evil. The slaves are well treated by the latter, and it is hard to distinguish those of the natives from their masters, their lots are so similar. When there is a famine, the natives take out their slaves and knock them on the head to save them from starvation. The slaves offer no resistance, preferring this to dying of hunger, and "knowing that it was no use going to the coast to save their lives at the hands of the white men, by being shipped as slaves." Evidently they don't know what is good for them. Perhaps with this exception they are about as well off as their masters.

In Mr. Monteiro's opinion there is very little to be said in favor of the negro. His character is distinguished rather by the absence of good qualities than the presence of positively bad. He is insensible to kindness, "he knows not love, affection, or jealousy." One tribe described as mild in their manners, knock their parents on the head when they become old and feeble, (a custom which, by the way exists, in other parts of Africa.) While the natives of Angola generally pay great respect to age, one tribe, the finest race of blacks the writer met in Africa, are cannibals, which he thinks may be the cause of their superiority, as they have so much more animal food than other tribes. Only natives who are killed for "fetish" are eaten, and the head and heart are the perquisites of the king of the town. The office of king is hereditary, but the descent is on the female side, that on the other being very doubtful; the nephew, the son of the king's sister, succeeds him. The approaching emancipation of the slaves, (it is to take place in 1878,) in the Portuguese colony will, the author thinks, be productive of great misery to the blacks, and utter ruin to the productive industry of Angola. Emancipation should be gradual, "and in proportion to the industrial and moral advancement of the race." "The natives of Angola," he continues, "are specially fitted for the introduction of habits of industry and usages of civilization, as they are naturally of a peaceable, quiet and orderly disposition. Under a firm and enlightened policy they would become more really civilized and industrious than any other natives of the West coast." There seems to be some inconsistency in these two statements; Mr. Monteiro is evidently rather biased in favor of Africa's, not "peculiar," but very common, institution.

The Portuguese government is atrociously bad, and the author is unsparing in his denunciation of it. It seems to be worse than the Spanish Government in Cuba, which places it very low in the scale of merit. One measure of the home government has been to make Angola a penal settlement, and export their worst convicts there, hanging having been abolished in Portugal. In Angola they are strictly on their good behavior, knowing that otherwise they will either be "killed off quietly," or thrashed to death by the authorities, if their crime is serious. "The more important murderers generally come provided

with money and letters of recommendation, and they start grog shops, &c., where they rob and cheat, and in a few years become rich, and independent, and even influential personages." This reminds us thoroughly of Bret Harte's story of the bad little boy, ending somewhat thus, "and he became very rich, and went to the Legislature, and was an infernal rascal, and universally respected in his native village."

As we must leave Mr. Monteiro here, we will say that we do not suspect either him or Bret Harte of plagiarism.

BOOKS RECEIVED.

The Schuylkill. A Centennial Poem. By M. K. C. Philadelphia: John A. Haddock. [Porter & Coates.]

Literature for Little Folks. First steps in things, thoughts, words, sentences, and child's literature. By Elizabeth Lloyd. Boards 50 cents, cloth 75 cents. Philadelphia: Sower, Potts & Co., 530 Market Street. 1876.

How to write Letters. A Text Book for Schools, and a reference book for private use. By Willis Westlake, A. M. Pp. 264, cloth, \$1.00. Philadelphia: Sower, Potts & Co., 530 Market Street. 1876.

The Religious Sentiment; its Source and Aim. A Contribution to the Science and Philosophy of Religion. By Daniel G. Brinton, A. M., M. D. Large 12mo., pp. 284, \$2.50. New York: Henry Holt & Co. 1876. [Claxton, Remsen & Haffelfinger.]

The Myths of the New World. A Treatise on the Symbolism, and Mythology of the Red Race of America. By Daniel G. Brinton, A. M., M. D. Large 12 mo., Pp. 331, price \$2.50. New York: Henry Holt & Co. [Claxton, Remsen & Haffelfinger.]

Ersilia: A Novel by the author of *My Little Lady*. Leisure Hour Series. Price \$1.25. New York: Henry Holt & Co.

Heaven, from the writings of Emanuel Swedenborg. Edited by B. F. Barrett. Swedenborg Library. 16mo., pp. 282, price \$1.00. Philadelphia: Claxton, Remsen & Haffelfinger.

Animal Parasites and Messmates. By Prof. M. Van Beneden. The International Scientific Series. No. XIX. With 83 illustrations. New York: D. Appleton & Co. 1876.

The Life of Alexander Hamilton. In 2 vols. By John T. Morse, jr. Boston: Little, Brown & Co. 1876.

King and Commonwealth. A History of Charles I., and the Great Rebellion. By B. Meriton, and J. Surtees Phillpotts. 16mo., pp. 399. Philadelphia: Joseph H. Coates & Co.

Miss Molly. By Beatrice May Butt. Leisure Hour Series. New York: Henry Holt & Co. 1876.

The Ancient Régime. By H. J. Taine. Translated by John Durand. 12mo., pp. 421, cloth, \$2.50. New York: Henry Holt & Co. 1876. [Claxton, Remsen & Haffelfinger.]

THE
PENN MONTHLY.

JUNE, 1876.

THE MONTH.

[With the present number this department of the PENN MONTHLY passes into new hands, the gentleman who has hitherto borne the burden of its preparation having retired to our great regret, from this post.]

THE Disraeli ministry have encountered their first parliamentary defeat, which may quite possibly be the forerunner of a series such as destroyed the credit of the Gladstone ministry and deprived them of a working majority in a thoroughly Liberal House. The Rev. Prof. Smyth, of Magee College, who represents Londonderry, divided the House on the question of closing the public houses of Ireland on Sunday; and in spite of the opposition of the ministry, who cannot forget that they owe their present lease of power to the publicans, he had a majority. The Indian and Egyptian blunders, the silly speech about Russia in Asia, the slave circulars, the bad management of the admiralty, and many other mistakes, are beginning to tell on Disraeli's strength in the House and before the public.

If we are not mistaken, the refusal to give up Winslow, the Boston forger, as required by the provisions of the Ashburton Treaty, would prove another dangerous mistake. The absurdity of pleading a law of 1870, as preventing the execution of a Treaty made thirty years earlier, is but too evident. It may be part of the foreign policy of vigor promised at the beginning of this ministry, but it is certainly misdirected vigor. Disraeli sees nothing wrong in remanding slaves back from English vessels to the custody of their masters, but he has the tenderest regard for the rights of runagates like Winslow.

Another blunder, we are convinced, would have been the amnesty of the Fenian prisoners, not because that transaction would have been wrong in itself, but because it was said to have been purchased by the support of Irish votes in a critical division. Nothing so weakened Gladstone's ministry as the Irish alliance, and the Liberals are now heartily convinced that if they ever take office again it must be with a majority in which that is not an essential constituent. But all the taunts heretofore flung at them would begin to lose their force were a piece of jobbery like this brought home to their opponents. The British Philistine would never pardon it.

MR. FISH is certainly entitled to honor for the determined stand he has taken in resisting the claim of the British Government in the matter of the extradition of the defaulter Winslow. It would have been an easy and proper thing for the English ministry to have supplemented the act of Parliament of 1870 by negotiation with the United States, looking towards an alteration of the existing treaty in accordance with that measure; and there would doubtless have been little difficulty in inducing the Cabinet and Gen. Grant to accede to a change which certainly seems to rest on an equitable foundation. But no such attempt was made, nor indeed was the matter brought within the view of the United States Government. The clause of the treaty frequently interpreted on both sides of the water remained unchanged, and the Secretary of State is, undoubtedly, perfectly right in refusing to acknowledge in the slightest degree the influence on a treaty of an act of Parliament. The Secretary's last despatch contains a very curious phrase, which must have been introduced there for a very good reason, although it is not easy to guess it. He intimates that the unwillingness to give up the prisoner may be due to a fear that his trial in this country might lead to disclosures that would be damaging on both sides of the water. The British Government having taken its position, will hardly be able to recede from it, nor can the United States afford to yield. The result probably will be the speedy release of Winslow, and the abrogation of the Extradition clause of the Treaty of '42.

THE spectacle recently presented to mankind by the Right Honorable Robert Lowe, ex-Chancellor of the Exchequer, was certainly very remarkable and highly edifying. Mr. Lowe is generally believed

to be a man of great ability and little sense, and undoubtedly of late he has appeared to confirm a part at least of this opinion. In the course of a speech at Retford, Mr. Lowe declared that Her Majesty had twice asked former Premiers to bring in a bill giving her the title of Empress, but until the accession of Mr. Disraeli had found no one willing to carry out her wishes. This statement stirred up an immense amount of loyal dust. The notice of the House of Commons was immediately called to it, and after a debate, during which its truth was positively denied, Mr. Disraeli put an extinguisher on both Mr. Lowe and his assertion, by denying the latter on the authority of the Queen herself. Nothing remained then for the "wretched, rash, intruding" Lowe to do but apologize, which he did in a manner and in words that strike an American as abject. Of course American ways of looking upon royalty are not English, and what might appear to us to be servile flattery would strike English ears as something vastly different. Englishmen, if not satisfied with the result, seem to have accepted Mr. Lowe's apology; and they are too fair and manly a race to strike a man so completely down as is the hero of this incident. Certain it is that if no further allusion be made to this matter, enough has been done to remove Mr. Lowe from among the forces of English politics.

EARLY in the month it looked as if the Sick Man's time were come. The outrage at Salonica, the brutal murder of the French and the German consuls, the insurrection of a fanatical populace in Constantinople, the arming of Christian and Mohammedan for a deadly struggle, seemed to tell of the coming of the end. But the imperial Triumvirate in session in Germany seems to have put off the great catastrophe. New demands, surpassing those of Count Andrassy's previous note, have been made on the Porte, and it seems will be acceded to; although England, consistent to the last in her role of Turkophilist, withholds her assent because too much is asked. What can be too much to ask of Turkey, in view of the continual violation of every previous promise, is a hard question. Certain it is that it is not enough to ask anything without claiming the right to see that the performance corresponds to the promise.

THE argument in the impeachment business goes along slowly. On the side of the managers, Mr. Hoar, of Massachusetts, seems to

have made the strongest speech. The question submitted to the Senate is both difficult in itself and disagreeable in its possible consequences. It is very hard for the Senate to accept as true the doctrine that may render gentlemen like Delano, Cresswell and Williams subject to impeachment by future Democratic Congresses; and it is said that the Honorable Zachariah Chandler, being on the rampage, has threatened that he will make it necessary for the Democrats to impeach the Honorable Jacob Thompson, predecessor of the Honorable Zachariah in Mr. Buchanan's days, if they persist in their unmanly persecution of the Honorable Zachariah's friend, Mr. ex-Secretary Belknap. This aspect of the case is indeed threatening and terrible. The prospect of each successive Democratic House of Representatives impeaching all Republicans formerly in office, and *vice versa*, while the Senate sits as a High Court of Impeachment "en permanence" is calculated to terrify the admirers of our institutions, and may make the boldest Senator hesitate before he helps to establish a precedent which would make such things possible. It would indeed then be impossible to call any man who had ever been in office happy, until he was dead and removed to a sphere in which investigations are no longer necessary, and Congress has no power to send for persons and papers. Impeachment as a political weapon would be a dangerous thing, liable to burst in a friend's hands, and for that purpose was hardly instituted by the fathers. But on the other hand it seems little desirable to lay down the rule that a corrupt officer may escape punishment by timely resignation. The question in respect of consequences is a difficult one, and it will be easier to consider it only in the light in which alone the Senate should regard it, as one of law. Unhappily, however, that body is not likely to look upon it as a court of justice would a legal proposition, and let the consequences, personal and political, take care of themselves.

THE Conference at the Fifth Avenue Hotel, called by Messrs. Bryant, Woolsey, Bullock, White and Schurz, to consider the meaning and the possibilities of the political situation, was such in its composition and its action as to create something of a ripple in the preliminary campaign for the presidency. A very considerable number of men, eminent in literature, in the church and in the learned professions were present. It was foretold by some that the conference would result

in an independent nomination; but while a majority of those who attended made no concealment of their preference for Secretary Bristow, they did nothing that could prejudice his chances at Cincinnati. They issued a notable address to the people of the United States, written it is said by President Mark Hopkins ("Mark the perfect man") of Williams College. They call attention to the dangers of our present political condition, and call upon their countrymen to reform them altogether. Having appointed a committee to sit until after the approaching conventions, they adjourned.

It may fairly be asked, what was the use of the convention? If it was to give an opportunity to a number of excellent persons to get together to comfort one another for having "fallen on evil days and evil tongues," that might have been done without quite so much newspaper talk. If it was to assure the people of the United States that there is still among us a number of people who hold that the Ten Commandments have not ceased to be applicable to politics, we trust that the fact is not new nor unknown, and that there are yet millions among us who have not bowed the knee to Baal. If it was to make up a slate for the Cincinnati convention, it might have been more manly to have spoken out and said so. But the Conference did nothing to organize the moral indignation which the better and larger public feel at the corruption of public men—nothing to direct the attention of the people to those reforms of political method, by which our government may be brought into ethical conformity with the national character—and, in view of the relative merits of of Messrs. Blaine and Bristow, we are constrained to say, nothing to secure us a better and a purer man for the presidential chair than we would have had if it had never met.

It is said that the New York members of the Conference, or at least some of them, do not understand that they are at all committed to Mr. Bristow for the first place on the slate. They are using what prestige the Conference had to bring the name of Mr. Wm. M. Evarts before the public, with Mr. Bristow as the candidate for Vice-President.

MEANWHILE the State Conventions go on with the election of the Cincinnati Convention, and all the indications point to Mr. Blaine as likely to be chosen on the first ballot. Senator Morton of course commands some Western votes, and Mr. Bristow divides some dele-

gations; but on the whole Mr. Blaine keeps clearly ahead. We are not of the number of his admirers, and we shall not rejoice very greatly in his nomination or his election; but neither shall we greatly bewail the vote that prefers him to either of his two foremost competitors. Mr. Blaine is not an ideal statesman; there is too much of the politician's smartness in his composition for him to command the high regard of those who look to see the stuff a man is made of.

THE tone adopted by the Western Democrats in regard to Governor Tilden makes his nomination by the Democratic Convention exceedingly doubtful. His speeches in which the Western soft-money men were denounced as thieves and rogues, are now brought up against him, and his friends bewail his indiscretion in not remembering the coming of a national election. Mr. Tilden probably counted on the dissolution of the existing parties and their reconstruction on new lines before that event came off. Or perhaps he is less of a politician, and more of a statesman, than his past record at Rochester and elsewhere would indicate; he was "thinking of the next generation, not of the next election." Should he receive the nomination, his early connection with the Tweed faction will receive a pretty thorough overhauling.

The World does itself honor by proposing General Hancock of this State for the nomination. Should he receive it, he will command a great number of Republican votes wherever he is known, either as a man or as a soldier. Nothing would be so likely to place Pennsylvania squarely on the Democratic side.

THE change in the Cabinet which puts Don Cameron in the Secretaryship of War would have excited more remark were it not that public attention is so largely directed to other matters. We are looking with so much intentness to see who the rising sun is to be, that we cease to care much what the setting sun is doing. But we are convinced that this new move will not fail to have a bearing on the coming campaign. It means an alliance of the Cameron and the Grant influence for some purpose. These two men hold the greatest amount of personal political power that is united in two men anywhere on this continent. The President has a great army of dependent office-holders, whose ultimate tenure depends on the issue of the campaign, and whose immediate tenure is at the pleasure

of the President. Simon Cameron owns the great majority of the politicians of both parties in this State. He is as free from the offence of "bribery" as any rich man who has gone into politics. But he has so steadily and systematically "befriended" every young and rising man who would accept of his favors, that he can depend upon an incalculable amount of political support. His "friends" have been procured by a wholesale generosity, which asked nothing and made no terms. Only those whose consciences were very wide-awake and (as some people would say) very scrupulous, resisted these advances as coming from a man whom they might be conscientiously constrained to differ from and oppose.

The new coalition may possibly indicate an effort to give the Cincinnati nomination to Mr. Conkling, in case of a failure to nominate Blaine on the first ballot. In case that succeeded, not even Simon Cameron could secure the vote of our commonwealth to the Republican candidate.

THE last fortnight has been marked by the meeting of several State Conventions of both parties. Massachusetts chose Dana, Forbes, Hoar, Chadbourne, Bullock, and notably James Freeman Clarke and James Russell Lowell, as her delegates to Cincinnati, most of whom are earnest advocates of Mr. Bristow, and few of whom will find much congenial society in the Pennsylvania delegation. The Kentucky Republicans present the name of Mr. Bristow, absurdly enough coupling it with the statement that "Kentucky gave Mr. Lincoln to his country"—when the truth is that Kentucky would at most periods of that great man's career have done something rather different to him if she could have got hold of his ungainly person. The reform wing of the Republicans in Alabama also chose a Bristow delegation, but the Spencerites will clip it effectually if they can when the right time comes at Cincinnati. Delaware, after a fight and a split, instructs her six delegates for Blaine. The most noticeable of all the conventions was that of Ohio, where the struggle lay between Allen and Thurman, in which the soft money champion triumphed and laid his nephew low—a result not to be wondered at or lamented, considering how well Judge Thurman deserved his fate after his course last fall. The result is quite in keeping with the general course of that extraordinary school of statesmanship called the Democratic party, inasmuch as it put an extin-

guisher on the chances of the candidate, perhaps the ablest and most respected who could be nominated at Saint Louis, and lit the feeble taper, already burned into the socket, of one by no means so able or so much respected, and who could hardly by any possibility be elected, were his nomination even capable of accomplishment. The action of this Convention is noteworthy in teaching again two things—the extraordinary blunder-power of the Democratic party, and the fact that he who sacrifices his convictions to help his own advancement will eventually be disappointed. Courage and devotion to principle last fall would have made Judge Thurman the day after the October election the master of all the better elements of his party. He feared to oppose his party then, and to-day it passes him by almost contemptuously.

ANOTHER noble example of Democratic capacity to satisfy the people of this country is seen in the election to the Senate of Barnum—not P. T., but the other one. The Senator elect enjoys the rare distinction of being the most absent Congressman that ever was in Washington. It is a form of distinction attainable to many, but secured by few; but it is the only thing for which the Bridgeport member is said to be famous, and it is said to be one of the best things about him. It is not hard to imagine that a modern lawgiver should be thought to be serving his country best by being never in his seat—indeed, there are many who do not serve it half so well; but neglect of congressional duties is hardly likely to suggest to other than Connecticut legislators' minds peculiar fitness for the Senate. There are rumors of other considerations, but it is pleasanter to think that a twelvemonth of Eaton in his seat has convinced the Hartford dignitaries that the best thing a Senator can do is never to attend the meetings of the Senate.

THE combination of beauty with utility, for which in their public works we praise the French, is singularly wanting in the figure of Liberty, proposed to be erected in New York harbor, as a memorial of the aid rendered by France in securing American Independence. A gigantic colossa, bearing aloft a dull flambeau, and carrying a gaoler's keys, standing upon a light-house tower, may be a very artistic conception to put upon paper, but can scarcely prove so

effective in execution. The mere size and height of the figure ensures that fidelity to the laws of proportion shall seem to the naked eye a gross violation of them; the head and torso tapering off like the thin end of a telescope. On the other hand, any variation in the relative size of limbs will involve a breach of the canons of art, which any *dilettante* ogling through an opera-glass from a distance, must, on the instant, detect. Possibly it is intended so to treat the subject in delightful freedom from anatomical rules, as to suggest to posterity the notion that Liberty could never have been human, nor could she be a favorite with the sterner sex; or, it may be designed that the lady shall display her charms only to those heroic mortals who dare to climb up to the giddy elevation of a foretop gallant.

THE Centennial Exhibition was grandly opened, in the presence of a multitude whose very numbers were impressive. There were many little hitches in the arrangements (which were well enough planned), and sins both of commission and omission. But on the whole the affair was a success, and certainly none who saw it can forget the spectacle. The speaking was not remarkable, and with the exception of Bishop Simpson's prayer—which certainly fatigued the audience, to which it was not of course addressed, but which, nevertheless, had to listen to it—was admirable for brevity; but the music was the main feature of the ceremonies. Whittier's hymn was grand and thrilling; but Buck's music, written for the Cantata, was the masterpiece, and carried off the honors. Mr. Lanier's conception was certainly fine, and in some parts his Cantata is exceedingly dramatic. It has been much laughed at, and not wholly without reason; for while the limitations of such a work are narrow and the poet is necessarily confined in its execution, there can be no necessity for him to strain the noble old English tongue, so rich in Saxon words and so wonderfully adapted to the poet's art, until he twists it either into the meaningless or the common-place. But there are many fine ideas and some fine lines in the Cantata, and it certainly has the merit of boldness and originality. The procession through the buildings on the opening day was broken into by the crowd, and the effect no little marred; but considering all things, the opening was successful in the best sense. Of the Exhibition this is no place to speak. In extent, variety, practicalness, it is a world. In taste there are many things to

be desired; but the wonder is not that there are so many that might be improved, but rather that there are so few. The time will come when the patriotic labors of John Welsh, and A. T. Goshorn, and Thomas Cochran, and the men who helped them—it would almost be insidious to name any without naming all—will be appreciated by the American people at their proper value. How much the Centennial will do for the merchants of Philadelphia, who have done so much for it, remains to be seen; but this at least is certain, that it has brought with itself its own reward in the stimulus it has been to the energy, and enterprise, and public spirit, and patriotism of our people. It has shown them what they could do when united in an honorable cause; and if every dollar that has been spent be sunk in the enterprise, such a teacher and peace-maker as the Exhibition will inevitably be, will be worth all the care, and the labor, and the money that have or could have been expended.

THE University of Pennsylvania has sustained a great loss, as every one of the thousands who have graduated since 1845 will feel. Dr. George Allen, Professor of Greek, died of heart disease at Worcester, Mass., after twelve hours of illness. *Vir nullā non donandus laurā.*

CRITICAL OBSERVATIONS ON THEORIES OF THE
EARTH'S PHYSICAL EVOLUTION.

(*Concluded.*)

THE contractional hypothesis is here rejected as being inconsistent with all indications we possess of the condition of the earth's interior, and with the structural forms which are visible upon its surface. These indications all point to the conclusion that the cooling of the earth is still in its earlier stages, and such will be the assumption here made. From this it would necessarily follow that those alternations of emergence and submergence which have occurred in some places, and those elevations and depressions which occasion the irregular profiles of the earth's surface, have not been *relative* movements, due to a variable amount of convergence towards the earth's centre, but have been *absolute*—now upwards, and now downwards. Plateaus and continents are true uplifts, and ocean bottoms are true subsidences. They have been regarded so for many years, and are still so regarded in the present discussion. With this starting-point, the path of argument is walled and narrowed for a short distance by certain alternatives, and its first inference becomes rigorous. If we consider any area which has been uplifted as the base of a cone having its apex in the centre of the earth, then such an uplift would necessarily involve an increase in the volume of the cone. But volume is the quotient of mass (quantity of matter) divided by density. Therefore, an increase of volume must be attended either by an increase in the quantity of matter, or by a decrease of the density of the cone. No third modification is possible or conceivable, and we must find the cause of the uplift in one of the two, or both. This deduction enables us to state the problem in a little more definite terms than would be available in its original form. Thus, does physical science furnish us with any processes by which a rising area can receive an accession of mass, and a sinking area can lose mass, or any by which they can respectively lose and increase in density?

Areas below ocean level may receive increments of mass by the deposition of strata, and those above that level are known to lose mass by the manifold processes of denudation. But these are not the changes which are called for at present. To account for the facts, the addi-

tion or subtraction of matter must be in the subterranean regions, if they exist at all. Is this a possible occurrence? We may here have recourse to a suggestion which has been made by Babbage and Sir John Herschel, and is so self-evident that it will be accepted at once. The removal of material from the land and its accumulation in the sea, is equivalent to the unloading of the former and an overloading of the latter. If, as most theories assume, both land and sea bottom rest upon a liquid or viscous magma, movements will take place in conformity with certain well-known hydrostatic laws. The sea-bottom will subside through overloading, protruding the plastic matter beneath in the direction of greatest relief or least resistance;—that is, towards the unloaded land. Thus, a static equilibrium is maintained, and the problem is essentially resolved into a hydrostatic one. This suggestion is a valuable one, and implies more than it expresses. It is quite clear that if the crust of the earth everywhere rests upon a liquid, or even considerably plastic support, the altitude of every portion of the earth's surface is determined solely by the laws of hydrostatic equilibrium. But its importance at this juncture is not very great in its present form; but in connection with certain considerations to be hereafter alluded to, it will be seen to have a most significant relation to the general problem. It is not capable, as here presented, of explaining great uplifts and mountain-building, for the utmost that such movements could accomplish would be the maintaining of the respective areas at their old levels, in spite of denudation on the one hand, and the deposition and building up of strata on the other. It does suggest a mode by which a land area may receive beneath it an accession of mass, but only to a very limited extent; and how an oceanic area may lose mass, but only to an amount equivalent to the gain in stratification.

There is another way in which the required additions of mass may be conceived to occur. The action of water upon rock material at high temperatures has within a few years become a subject of much research among certain eminent "chemical geologists." The results of the inquiry have been of great moment, especially in connection with theories of metamorphism. The point with which we are most concerned just here is the fact that there is a general tacit assumption that in the progress of the evolution water gradually penetrates into the profounder depths of the earth, and into the presence of the

primal heat. Mr. Mallet assumes this to be the cause which determines volcanic eruptions. It has long been accepted that volcanic phenomena are accompanied by the disengagement of large quantities of water brought up by the lava and incorporated with it. Consider also mineral veins which are doubtless filled by minerals brought into them in watery solution and precipitated. The penetration of water to profound depths may be regarded as a well sustained theory, harmonizing and explaining many extensive groups of subordinate facts. Nor is this view commonly confined to the belief that the penetration is only by way of fissures and cracks, but it includes also the complete permeation of the rocks by water; else how could lavas be supersaturated with it? how could metamorphism be effected by it, as the newer theory proposes? and how could mineral veins be filled by segregation from the wall-rocks or from below? But it is usually supposed with apparent justice that the penetration is limited as to depth by the repulsive power of heat, which increases at a rate sufficiently rapid to overcome at a greater or less depth the effect of pressure to keep it in a liquid state. Yet this limit is presumably receding with the secular cooling of the earth into lower depths. That some limitations would be required to put this view into strict accordance with facts is more than probable, but just here we are not concerned with them; the most general statement is sufficient for present purposes. Whether the inverse process—the elimination of water from the lower depths to which they may have penetrated, is possible, thereby constituting a diminution of mass, is a question which will be alluded to further on.

The possibility of change of density in subterranean matter has hitherto been considered only in connection with change of temperature, which we have already seen to be unimportant—so far at least as it is dependent upon secular cooling. Yet there is another possible cause which seems to have been quite overlooked. If it should prove to be a *vera causa*, its importance will be immense. Before an estimate can be formed of its probability, it will be necessary to advert to a theory which has within a few years been developing into satisfactory form, and has gained the general approval of both chemists and geologists. The discovery of the origin of certain crystalline rocks through the metamorphism of sedimentary strata gave rise to an intense curiosity as to its cause. The chemical reactions by which such changes could be produced were wholly unknown

in the laboratory. Yet it was evident that some changes, of which chemists were ignorant, had occurred on a grand scale. In order to discover their nature several investigators endeavored to reproduce, as far as practicable, the conditions under which these changes were presumed to have taken place, and to investigate experimentally the behavior of rock-material in the presence of those conditions. It was apparent that one of them was intense pressure; and a high temperature was presumed to be another. Some chemists suspected that the pressure of water acting as the vehicle in the molecular transfers was a third.

The properties of water as a chemical reagent or solvent were known only at comparatively low temperatures, for the sufficient reason that it cannot be heated above 400 degrees without employing extraordinary means to prevent it from exploding its receptacle, and even at that temperature nothing was known of its chemical properties. The most interesting researches in this direction were made by M. Daubr e, of the French Academy, who inclosed various minerals in small, thick-walled tubes of iron, containing water, and sealed hermetically by welding. The tubes were then exposed to temperatures of 600° F. and more for a number of days, and after cooling, were opened and examined. It was found that the water had acted very energetically upon the inclosed substances, breaking up their original combinations, and that new crystalline substances had been formed. Thus common glass and clay, which contain the chief elements which make up the rocks of the earth, were converted into felspar, mica, quartz and hornblende, which are the chief minerals of the crystalline rocks. These experiments were quickly followed by others of similar character, all leading to the same conclusion—that water reacts energetically, even at moderately elevated temperatures, upon minerals which are not sensibly attacked by it at lower ones, and that silicious compounds in a vitreous condition, like glass, obsidian, and many lavas, also many materials which are found in sedimentary rocks, are broken up and reconstructed into new crystalline forms. So satisfactory have these results been considered, that they have been applied with no small confidence to the formation of a definite theory, explaining the origin and cause of metamorphism. It is no longer thought necessary to assume that the crystalline rocks have been exposed to extremely high temperatures, sufficient to effect their dry fusion, for the experiments just spoken

of show that the required changes may take place below redness ; though it can hardly be doubted that the reaction of water and its solvent power increase with the heat, so long as the pressure is sufficient to keep it in its liquid form. The theory has been received with high favor by the general body of chemists and geologists throughout the world, and deservedly so. In the course of the synthetical experiments by which it was established, Daubr e and others observed that the minerals, in their transformation, exhibited changes of density which were sometimes surprising. Obsidian treated in this way, although losing a portion of its silica, increased in bulk fully one-third, and other minerals also showed a marked increase of volume. But it is probable that this was due to porosity, produced by the rapid cooling of the tubes and their contents, and the withdrawal of the water from the swollen mass which had absorbed it, and that the cooling was too sudden to admit of perfect crystallization. It is considered probable that minerals in this state of "hydrothermal solution," as it is called, are swollen and bulky, taking a form similar to that presented by silica in the gelatinous condition, and alumina in the hydrated state. This department of silica, alumina and many oxides, is well known in the laboratory ; and when these compounds are suddenly precipitated from watery solutions, they appear as a textureless pulp, in which crystals gradually make their appearance. These hydrated minerals are of considerably lower specific gravity than their corresponding crystals, and in general all earthy materials are less dense in the amorphous (uncrystalline) state than in the crystalline. The admixture of water would obviously render the former still less dense, and such is known to be the case.

In this hydrothermal action, then, we find a probable cause for changes in the density of the nether rocks. A decrease of density, accompanied with an expansion of volume, should occur when water finds access to them at high temperatures ; an increase of density, with diminished volume, should take place when from any cause new and stable crystalline compounds are formed. In truth, an alteration of volume might have been inferred at once as the direct consequence of any theory or fact which could show the possibility of chemical change below the surface of the earth ; for it is a matter of observation that all reactions are accompanied by changes of volume in the reagents. The amount of change it would be

difficult, if not impossible, to specify. As between the amorphous and crystalline states of the minerals constituting the greater portion of the rocks, the variation in density would average at least from one-tenth to one-eighth of the original volumes, and this would be very materially increased by the addition or loss of water. The contraction and expansion thus produced would exceed many times that which could result from the greatest variations of temperature which could be reasonably granted.

Another consideration of importance is the probable effect of hydrothermal action upon the mechanical condition of rocks. Wherever it has prevailed, the masses affected by it furnish indubitable evidence that they have been plastic, while lavas are quite liquid. All crystalline rocks which have been disturbed, show a convolution of their layers or some equivalent "implication" which could not possibly have occurred had they possessed always the hardness and inelastic rigidity which now characterizes them. It is believed by Daubr e that this plastic condition may exist at comparatively low temperatures—perhaps as low as 600 F. The same conclusion may be reached by an independent course of reasoning. No person who is familiar with the appearance of metamorphic rocks can doubt that they have been plastic, and no doubt now exists that they were formerly sedimentary in a vast majority of cases. To conclude that they were ever subject to a temperature at which dry rocks can become viscous, would involve the conclusion that they must have been buried at the time of their metamorphism at impossible depths in the earth, or else had received an accession of temperature from some cause wholly beyond our present knowledge. The violence of the necessary assumptions is such that no geologist can hesitate to reject an extreme temperature of metamorphism.

The proposition here advanced is so important that we may well pause for a moment for the purpose of scrutinizing carefully the basis upon which it is constructed, in order to gain some estimate of its degree of probability. This may be done by simply recapitulating the arguments advanced and putting them in compact form, where the reader may judge of the value of every component part for himself. (1) The hydrothermal theory of metamorphism is taken for granted. (2) The nature of this process, though not fully understood as yet, is presumed to be an intensified solvent power over silica, alumina and several other common minerals, by which it is

enabled to break up the combinations in which those materials occur in many sedimentary rocks, and in any amorphous condition. In this action great pressure (tension) and a temperature approaching redness are essential conditions. (3) This state of silica, alumina, etc., is presumed to be the same essentially as that observed in the laboratory when those oxides are obtained in the soluble hydrous condition, where they are of considerably less specific gravity than the crystalline anhydrous forms.¹ This should be true if from no other cause than from the simple principle of alligation. (4) Hence it is inferred that the condition of hydrothermal solution is attended with a large diminution of specific gravity. (5) Inversely, the removal of any one or more of the essential conditions, whether by a fall of temperature or decrease of pressure, is followed by the crystallization of the materials and an increase of density. In the briefest possible manner we should proceed to apply these deductions to the groups of physical features which have been brought into the discussion, and thus test in a preliminary way their efficiency and adequacy.

If the deeply-buried rocks like those at the surface are composed mainly of silica, alumina, and the alkaline and earthy bases, it would require but a very moderate degree of expansion to render their specific gravity less than that of the rocks above them. If, moreover, they become highly plastic from any cause, then the position of the superior strata is one of unstable equilibrium. So long as the foundations of the strata are rigid, or even while they are plastic but denser than the upper beds, expansion would be attended by no further disturbance than a vertical upward movement, and such minor complications as might arise from inequalities of the process, or of distribution of the load. But as soon as their density becomes less a new order of movements must ensue. It has already been remarked that the coherence of a mass of strata of great extent is practically nothing. The smaller inequalities which are known to exist in their bedding would be ample to rend them asunder in numberless places. In masses of small extent, such as a single mountain ridge, this co-

¹ The exact density of gelatinous silica is not known, and would be difficult to determine on account of the great quantity of water mechanically held in the clots. Of course it is not intended that the enormous bulk of precipitates of alumina and silica represents the condition of hydrothermal rocks, but rather those precipitates after water is expressed and the pulp condensed.

herence would undoubtedly be of some account ; and in the case of unstable equilibrium here given, a large extent of crust would divide and subdivide itself until the magnitudes of the fragments were sufficiently reduced to give an appreciable value to their coherence. The directions of the lines of fracture would, in the absence of any other assignable cause, be determined by the inequalities in the distribution of deposit. The problem now becomes a hydrostatic one. The axes of maximum deposit become the axes of future synclinals, and the axes of minimum deposit mark the positions of future anticlinals. The heaviest portions sink into the lighter colloid mass beneath, protruding it laterally beneath the lighter portions, where by its lighter density it tends to accumulate. These movements are the plainest sequences of well-known hydrostatic laws, which we cannot hesitate to accept if we accept the premises. The resulting movements would be determined first by the amount of difference in the densities of the upper and lower masses, and second by inequalities in the thickness of the strata. The forces now become adequate to the building of mountains and the plication of strata, and their modes of operation agree with the classes of facts already set forth as the concomitants of those features. Let us see how they can be applied to a system of plications.

It has been indicated that plications occur where strata have rapidly accumulated in great volume and in elongated narrow belts; that the axes of plication are parallel to the axes of maximum deposit; and that the movements immediately followed the deposition. All of these facts are covered by the cause here suggested. Wherever the load of sediments becomes heaviest, there they sink deepest, protruding the colloid magma beneath them to the adjoining areas which are less heavily weighted, forming at once both synclinals and anticlinals. If the difference in the densities of the upper and lower portions be small, the latter being a little less or but slightly plastic, the disturbance would not be great; but if this difference and also the plasticity be considerable, the disturbance becomes not only greater, but assumes new phases; finally, when the two conditions become extreme, the phenomena become eruptive. The first stage is exhibited by low undulations, which occur where the bedding is less unequal, the disturbances being correspondingly small. The second stage is manifest in regions like the Jura and Appalachians, where heavy beds of

sandstone, limestone and conglomerate have accumulated rapidly in long and narrow belts. These have subsided, forming troughs in which the sediments continued to gather and still further augment the disturbing cause. The material displaced by the sinking masses must have been driven beneath the anticlinals, turning up the edges with increasing inclination, and pushing up higher the strata above them. In this position, the two branches of the inclined strata form great "top-heavy" masses, with a powerful tendency to further inclination; nor will this tendency cease to produce its proper movement so long as the latter is unobstructed by the rigidity of the masses involved. It may continue until close plication is reached, or in extreme cases, until the great blocks are turned upside down, as is frequently seen in the mountains. The movements under the conditions here given may be discussed by mathematical analysis, being nothing more than special cases of well-known hydrostatic theorems. We may exemplify this by the folding of the Appalachians, the most typical of all plicated regions. Suppose the foundations of those enormous, but uneven beds, to have been softened and expanded by the combined action of water, heat and pressure, until the density became less by a few per cent. than that above. This plastic material would be heaped up in waves beneath the less heavily-weighted portions, forming synclinals and anticlinals. Suppose that on the south-eastern side, the hydrothermal action was more advanced, as the greater metamorphism abundantly indicates, and that the softened and lightened layer was thicker, and the bedding more unequal, as we know it to have been. Then the folding would have become a process of rotation in the branches of the folds, continuing until the strata stood on their edges, and rested on harder unyielding rocks below the softened layer, or were caught and held at any intermediate position. These beds are miles in thickness; and once tilted, any sensible amount of top-heaviness would become a force so enormous that nothing less than a high degree of rigidity in their foundations could prevent their capsizing. We may discern here also the possible explanation of a class of facts, which has excited much wonder and perplexity. In several well-studied plicated regions, the steeper dips are all, or nearly all, in one direction. In the Appalachians, the north-western dips are greater; in the Jura, the northern; and in the Coast Range of California, the western. The general arrangement indicates that

the vertices of the inverted synclinal arches were all deflected in the subsidence to the same quarter, as if they encountered less resistance in that direction, or as if the viscous layer were protruded in that direction more easily than in any other. A cause for this may be suggested in the fact that such enormous bodies of sediment constitute a general overloading of the whole region, giving a horizontal resultant towards the land which was denuded to supply the materials. The general statement of the order of facts would then be that the steepest dips are towards the ocean, and away from the land. This is true of the Coast Range of California, and *was* true of the Appalachians, where the relative positions of land and sea have been reversed since the plications were formed.

The third stage is that of mountain-building. Here the disturbing agencies have been extreme. All typical mountains, consisting of granitoid cores protruded through strata and towering above them, stand upon lofty tables; such mountains are quite unknown in low countries. In this sense they are the corrugations of elevated regions, and belong nowhere else. The most abrupt and rugged range in the world—the Sierra Nevada—is a series of sharp pinnacles and ridges planted upon a broad expanse of high lands; and the same is true of the Andes, the Himalayas, the Alps, and of all ranges of granitoid mountains. And such should be their relation, from the argument here offered. The uplifting of the regional belts on which they occur by columnar expansion of the underlying magma involves at once the conclusion that the latter must ultimately reach a degree of density much below that of the overlying rocks, which break up into prisms or folds and sink or recoil away from the axis of the rising colloid mass. The lofty positions of the final crests are merely those which are due to their lighter specific gravity, under a hydrostatic law of the simplest order. There is no persistently recurring feature of mountain structure which does not immediately follow from the conditions here indicated. The singular attitudes of the folded strata and their complete overturning become intelligible. The objection might be raised that the materials of the mountain cores are now as dense as those of the adjoining strata; and where they are cold and crystalline, they are so. But according to this argument the case is quite different at an inconsiderable depth. Beneath the mountain crests the colloid mass preserves its greater volume near to the surface; beneath the strata

it has been protruded laterally away and extravasated, the quantities of matter in the two columns being equal. Of this an indication is found in the very rapid rate of increase of temperature with depth, which is found in mines sunk in the granitoid cores and flanks of such mountains.

There yet remains the subject of volcanoes—the most extreme cases of an extreme class—and to these only the briefest attention can here be given. It has long been held by vulcanologists that lavas are heavily charged with water, which is given off in great quantity at the moment of eruption. It seems difficult to doubt that aside from the expansion due to their high temperature, the alligation of a substance so much lighter than the molten vitreous matter must occasion a great diminution of specific gravity. But if this be true, an eruption of lava from a lofty summit seems the easiest of problems. The expelling force is simply the weight of the strata which cover the liquid reservoir, and balance the greater altitude of the lava-column by their greater density. It is a common observation that the volcanoes are situated near large bodies of water. This is certainly true, but we may in equivalent terms express the correlation in such a manner as to connect the cause with the effect. Volcanoes occur where hydrothermal lavas exist and are displaced by the subsidence of sediments. This may be in the ocean, or upon its shores, or even upon the shores of great inland lakes, like the recently-extinct volcanoes of Utah and New Mexico. They may occur among the great masses of strata or about their edges. The vicinity of shore-lines should be their most favored neighborhood; for it is upon coasts that deposits are thrown down in greater magnitude, and there the greatest inequalities of loading occur. Relatively to the enormous weights which are here gathered together, the adjoining land is a region of relief; and towards this relief the fluid mass below (if it exists) will be propelled. It may seem like violence to our senses to suggest that a portion of the earth's crust lying below sea-level can be over-weighted, while peaks that pierce the snow-line occupy an underweighted region. But let us look at this a little. The thickness of the palæozoic strata of the Appalachians is from five to eight miles; the thickness of the Miocene strata of the Coast Range in California, according to Messrs. Brewer and King, is nearly five miles; and both systems bear every indication of being shallow water deposits—in brief, coast and “off-

shore" deposits. No geologist doubts that these strata subsided as they grew in thickness. But if they subsided, they displaced the matter beneath them; and what became of the displaced matter? So far as the Appalachians are concerned we know with certainty that it did not move in the direction of any portion of the continental interior, and that no trace of its presence can now be found in the existing land. In a word, it *must* have gone to the south-eastward—towards the land whence the sediments were derived. Regarding the imposition of such a stupendous mass as a disturbance of the earth's equilibrium of figure, this is just the direction towards which gravitation would inevitably propel it. On the Pacific side we know not what geological secrets the waters of that ocean may cover; but we do know that the neighboring Sierras have received an accession of altitude in later tertiary times, and that the astonishing and unparalleled tertiary strata at their feet have settled upon their foundations to a commensurate amount. These relations are repeated over and over again in the Uintahs, the Wahsatch, and the Park mountains of Colorado—strata miles in thickness have sunk, and right at the upturned edges come up the towering granitoid mountains. On the one hand matter has been displaced, and has gone somewhere—on the other hand, displaced matter stands revealed in immediate contiguity. Can there be any doubt that they are one and the same displacement? On the Atlantic side the ancient sea-bottom is wholly revealed, but the land which fed it has disappeared. On the Pacific side the denuded land yet remains, but the sea-bottom is partially hidden. But in many of the Rocky ranges the whole category is before us. Perhaps as good a sample as any is the Uintah range. Disregarding the enormous cretaceous deposits, the fresh-water tertiaries turned up on the flanks of these mountains are 10,000 feet thick. That these beds subsided by their gross weight as rapidly as they grew, admits of no shadow of doubt. The mountain cores against which they recline are rocks giving every indication of having been extravasated upwards. What became of the matter displaced by the sinking strata, and whence came the displaced matter which slopes down to their upturned edges, and how can the conclusion be avoided that they are one and the same? If it be objected that the greater altitude of the mountains should overbalance the weight of the lower strata, the reply is: The mountains are there, and at their feet are sunken strata; grant that the density of the

mountains is less, and the argument becomes a demonstration. Conformably to this view, the position of volcanoes around the outskirts of maximum sediments (which are usually shore deposits) becomes a normal one. The liquidity of lavas renders their extravasation easy at the points of greatest relief, where rents are most liable to occur; and their lower density is a sufficient reason for the altitude at which they are poured out.

The preceding argument is not intended at all as a solution of the general problem of the evolution of the earth's physical features. This problem, which has engaged some of the broadest and profoundest intellects of modern times, is not to be solved by a magazine article. The intention has been to indicate in the briefest manner how those features all point to the past existence of a series of changes which have not hitherto been admitted into the category of dynamical agents. The idea that earth-matter undergoes expansion of volume may savor of temerity, and it is frankly acknowledged that the *à priori* evidence and experimental basis certainly do not possess that degree of conclusiveness which true men of science rightfully exact before admitting new propositions to their confidence. But there is an array of circumstantial or indirect evidence in favor of the view, which becomes more and more resistless the more it is examined and analyzed. Wherever a great structural problem is taken up and examined in detail, and one conjecture after another is thrown aside as inconsistent with the facts, this view always remains an essential factor in the final result. If it cannot be proven by direct synthesis, it can be proven by applying the *reductio ad absurdum* to its negation. Cases occur where it *must* be true, whatever their origin. The Rocky Mountain region is full of them. Even conceding the validity of the contractional hypothesis, the necessity of the affirmed condition of density would be as stringent as ever; otherwise the relation of the central masses to the sunken strata could not be what they are known to be. For the mountain cores were plastic when they were protruded, and must have been subject to the laws which govern their equilibrium, and these are essentially hydrostatic. We may note here a general characteristic of this view which is strongly in its favor. It has already been mentioned that the remarkable preservation of the continuity of the strata in the great disturbances to which they have been subject, indicates that the forces which moved them were of the least intensity compatible

with their displacement. But it is a fundamental principle of hydrodynamics that all of its solutions are "solutions of least force"—the very ones that are particularly wanted.

It is not intended to offer the foregoing deduction as a comprehensive theory of the origin of the earth's physical features; for such a theory is the work of a generation of great men. Nothing more is intended than an attempt to indicate a highly important consideration hitherto neglected, but quite indispensable as a factor in the final theorem. It is an effort to break a dead-lock which has hitherto beset all inquiry into this magnificent and mysterious province of scientific research, and has apparently driven a large body of geologists into a premature acceptance of the contractional hypothesis. Doubtless the difficulty has been that no sufficient independent evidence of expansion and contraction of earth-matter by any other causes than changes of temperature has as yet been brought to light; and conservative, prudent thinkers are not ready to trust themselves to what seems at first a purely arbitrary assumption. Such evidence is not the basis of this argument, which rests upon facts of geological structure that are held to admit of no other possible interpretation, and is therefore an *à posteriori* induction. If it be accepted, much of the difficulty which surrounds the general problem will be swept away, and the prospect of still further advances seems to be much nearer.

The considerations here offered as those which a comprehensive theory must take cognizance of and bring into correlation, are the following: 1. The regions of great disturbances are regions of great sediments, and those of least disturbance are regions of small sediments: regard being had to the rapidity with which any stratigraphic series has been accumulated. This order of facts appears to be general, so far as present knowledge extends.² 2. The

² It is the opinion of many observers in the mountain regions of Colorado Territory, that this is a country of light sediments. Mr. A. R. Marvine and Prof. Powell regard this as apparent and not real. The upturned edges of the strata in the "hog-backs" are no doubt thin, but there is good evidence that they thicken rapidly lower down, for they are uncomformable throughout; and the general view adopted seems to be that as fast as they were thrown down they were turned up at the edges and attenuated again by erosion, the detritus being carried further out. The evidence of a stupendous wasting and erosion of this country throughout tertiary time is complete; and as the whole area of deposit was lacustrine, it may well be asked what became of the detritus, if vast bodies of it do not remain there still?

epochs of disturbance have been those during and immediately following the deposition of thick strata. 3. The axes of displacements and vertical movement are parallel to, and probably coincident with, those of maximum and minimum deposit; where a series of the latter axes are parallel and have a definite direction, the plications and mountain forms have similar relations; and where there is no definite method in the variations of thickness, the movements have no systematic trend or parallelism. 4. In the process of metamorphism, it is probable that great changes occur in the specific gravity of the materials metamorphosed, an absorption of water rendering them lighter, and the elimination of water heavier. 5. All metamorphic rocks exhibit unquestionable evidence of having passed through a plastic or colloid condition; and if this condition prevails in any portion of the crust of the earth, the equilibrium of the parts so affected must be subject to hydrostatic laws. 6. The transfer of great bodies of sediment from one portion of the earth's surface to others, is tantamount to a disturbance of the earth's equilibrium of figure, which the force of terrestrial gravitation constantly tends to restore, and which it inevitably will restore wholly or in part, if the materials of which it is composed are sufficiently plastic.

C. E. DUTTON.

EUROPEAN AND AMERICAN FORESTRY.—I.

DURING the whole of the century through which we have just passed, the entire thought of the race that occupies American territory seems to have been animated with the object of making way for man. Such intense energy directed to the destruction of all the barriers of nature has had no parallel in the records of history; and as the second secular period of our republic goes forward in its development, the necessity of a conservative principle in regard to nature's gifts will become apparent.

Judging from the immense and seemingly inexhaustible tracts of virgin forest that still clothe our vast domain, there are many who are incredulous in regard to the near or even distant approach of what the French term *déforestation*, (German, *entwaldung*.) or a total devastation of the woodlands. But we would refer all such as have

doubts on the subject of an approaching exhaustion of timber, to the past history of déforestation in Europe and all the other countries on the globe.

In illustration of the subject of American forestry, therefore, we propose giving a review of the general devastation of the forest in Europe, Asia and Africa, during the course of centuries. 2. To show how strong a tendency to similar results exists in America; and 3. To furnish suggestions as to the means of preserving our forests, before we shall have reached that chronological point when all recuperative attempts will be unavailing.

The history of forest devastation and a general diminution of woody surface of territory throughout Europe and other countries, includes climatic and other injurious influences on soil, irrigation, the tendency to great floods and corresponding droughts; physical results that affect the health of population, and the preservation of property.¹

Commencing with the forest history of Germany, we find the indiscriminate destruction of the woods has been a matter of lamentation throughout its whole territory. Although an admirable system of forestry has existed for centuries in several German States, the problem how to harmonize the interests of the individual with those of the State—how to preserve the woods in those localities where, for sanitary and other utilitarian ends, they properly belong and should claim the natural ownership of the earth and the paternal protection of the State—has never been solved; and the obstacles standing in the way of its solution are identified with state economy in every country and under every government.

Prussian writers ascribe the loss of their forests to the encroachments of population, the improvident use of leaves as a substitute for straw (*Streuutzung*), occasional fires extending over large tracts of mountainous country, and, in some instances, to the demands of

¹ The author to whom we are indebted for much of our information on this head, presents a long array of quotations from German, French and Italian writers on forest statistics, who not only show the extent of devastation, but its invariable effects on the countries which were laid a prey to it. See *Die Bedeutung und Wichtigkeit des Waldes, Ursachen und Folgen der Entwaldung, die Wiederbewaldung, &c.*, von Fr. Freiherrn von Löffelholz Colberg, Leipzig. 1872. (Significance and importance of the forest, causes and consequences of its devastation, its restoration, etc.) The work is recommended by the Bavarian government to all the governments of Europe.

princes on the woodlands as a last pecuniary resource. A deeply rooted forest is a permanent protection of a sandy sea-coast; and a large portion of sea-girt Prussia has experienced an irretrievable loss in the deprivation of her woods where the sea washes the soil. It is told of King Frederick William I., that when he was in great need of money, Herr von Korf came to the rescue by clearing tracts of the public forest, and the reservations that, covering an immense sand-bank between Dantzic and Pillau, protected the entrance to the city from the depredations of the ocean. The measure of Herr von Korf proved a great financial success, and poured into the exhausted exchequer of King Frederick 200,000 dollars; but since the disrobement of the land of the protection that nature gave it by furnishing a barrier to wind and storm, the surf, notwithstanding all artificial expedients to resist it, has nearly filled the bay with sand and reed, the fishery has diminished in production, and millions would now be given could the original forest be restored.

Huge forest conflagrations in certain fir districts have added greatly to the diminution of woodland possessions, destroying at one time, in the year 1863, 500 acres, and at an earlier period, 10,000 acres.

Under the Prussian system of forestry, the preservation of the woods depends chiefly on the government: it has jurisdiction over its own, but none over the possessions of the titled classes, and but limited control over those belonging to the agricultural land-holders. Würtemberg contains nearly two millions of acres of forest. The evil under which she suffers is the great consumption of the deciduous leaf, used for litter, which is estimated at four-fifths of the annual product. The government itself holds 600,000 acres, and of this 212,000 is subject to the so-called *streu-recht*, *litter-right*.

Saxony offers an illustration of the results of forest devastation in the decline of the rivers Elbe, Mulde, and Elster, whose waters have sensibly fallen, and have now reached such a low point as to admit of no parallel in earlier periods.

In Austria may now be seen vast moors and barrens, bearing evidence of their having been forest scarcely a hundred years ago. Where the woods were improvidently destroyed, nothing remains but waste land and untillable soil.

Bohemia is still in possession of a wealth of forest land, its woody surface being nearly one-third of its whole area; but as only one-

twenty-fourth of all this land is under the administration of the State, evidences of an abuse of the forest are seen in the consumption of the deciduous leaf and change of climate caused by the denudation of the mountains. The Elbe, in its rise and fall, low waters and inundations, points to the extinction of the forests in those localities along its course where it should be allowed to remain undisturbed in primeval wildness. In Hungary, forest devastation has prevailed to a large extent, and its effects on climate and irrigation have been seriously felt. No adequate system of forestry exists, and although an average of twenty-three per cent. of surface is covered with woods, the distribution is so unequal—leaving portions of territory entirely bare, while in others there is an excess of forest—that all the evils ensue from such an inequality that every other country on the globe suffers and is doomed to suffer under, from the operation of like causes. When dwelling on the subject of our own forestry, the example of Hungary will appeal to our future legislation, and force upon our attention the need of a system of forest culture in order to preserve a proper distribution of woody surface. Boehm, a writer on Hungarian forestry, relates that when Sir Francis Drake, in 1586, introduced the potato, its successful and general cultivation in that country superseded the production of grain to such a degree as to cause a dearth of straw; recourse was had to the deciduous leaf of the woods, and the consequence was such an impoverishment of the soil, as to cause the extinction of large tracts of forests from want of the nourishment the decomposed leaf affords. In all its bare districts, Hungary suffers from drought and the disappearance of its springs during the summer, and the same story of droughts and floods, the result of deforestation, is told here that we hear of in all other countries.

In the Tyrol, no efficient measures have ever been taken to preserve and perpetuate her woodland territory, and, as a consequence of the disrobement of her mountains, agriculture has been arrested, and fertile fields made barren. Cold winds sweep across the naked hills, and exhausted springs and streams alternate with inundations that devastate the valleys. It is presumed that during the past century, more than one-third of the productive land of the Tyrol has been destroyed by floods resulting from the causes we are dwelling upon. As late as the year 1848, Styria abounded in forest land, which composed about two-fifths of its entire surface; but, as the

Austrian government affords no protection to the forest, wood is becoming scarce in that country, and the other accompanying evils of forest devastations are being felt. The Karst, a tract of country, four to six miles wide, by thirty-four miles long, bordering the Adriatic, north of Trieste, was at one time, while under Roman Government, supposed to have been well timbered. But depredation hinders the propagation of new forests, and wide-spread evils on soil and climate are the consequence. Attempts at restoration have been made and repeated in various localities; but the poverty of the government and an inefficient system have failed to clothe the Karst in its original verdure.

The same tale of forest extinction and its consequences is heard from Dalmatia, where constant depredation and theft place hindrances in the way of an effectual forest system. Large quantities of trees are felled for the purpose of exportation, and ere long the entire disappearance of the forest of earlier centuries will ensue.

In Switzerland the philosophy of forestry and the climatic influences of woodland has not yet taken root. The same apathy that characterizes most other nations on this subject prevails here, and the timber of the mountains is felled with that indifference to the future, that leads their proprietor to believe that wherever trees have been hewn nature has provided for a perennial growth. The consequence of the general want of knowledge and of scientific legislation on the subject, is to be recognized in a wide-spread denudation of forest in all those localities where springs should exist to feed fertilizing streams; where woods should shield the valleys from storms that sweep across the mountain tops, and protect all the important passes and Alpine pathways from the fatal avalanche. The progress of the spoliation of her forests has extended throughout the last two centuries. Saussure, in his "*Voyages dans les Alpes*," acquaints us with the fact that formerly the lakes Neufchatel, Biel, and Murten constituted one large basin; but since the surrounding land was cleared, their waters have fallen, and they have separated into distinct lakes. Formerly the vicinity of Bern, Alpnach, Appenzell, Graubündten, the valley of the Grisons, the Splügen Pass, and the country Geneva, were distinguished for their dense forests. These have become almost extinct, and no means whatsoever have been taken towards their restoration. This romantic Alpine land, however, is not so entirely disorganized on

the subject of forest legislation as to leave her woodlands a total sacrifice to the rapacity of gain, for we find that in Canton Waadt, the capital of which is the beautiful city of Lausanne, there are six forest districts, each of which is under the supervision of an officer. In the Cantons Aargau, St. Gaul, Graubünden, Tessin, Luzern and Freiburg, similar organizations exist, although they are under too mild a discipline to confer much positive benefit. Many indications incline us to believe, however, that the strong innate love of the Swiss people for their wood-clad mountains will lead them to adopt, ere long, some more general system of forest laws, having in view the replanting of all denuded districts, and the restoration of that leafy verdure which once adorned all the Alpine mountain heights.²

No portion of continental Europe has more cause for lamentation over the loss of its forests than Italy. In every respect it might and should be the garden of Europe; yet large portions of its once fertile domain have become impoverished by the loss of that admirable protection which nature guarantees to the culture of the soil—the forest. A system of forestry has been maintained by the state from early periods, during Roman ages, and all through the medieval epoch. But intervals of disorganization will ever appear in the history of a people, and during these times the woodlands became a prey to devastation. The poverty of princes, state debts and the requisitions of war, all draw upon the resources that are found in timber and fuel, and thus a succeeding generation finds itself bereft of one of the essential blessings that flow from a prolific soil and salubrious climate. Along the western coast of Northern Italy extending from Genoa to the Roman States, nearly the whole chain of Apennines is divested of forest. In Sardinia and Sicily, once reputed to be the granaries of Italy, springs and streams have been entirely desiccated by the loss of the trees that shaded them from the solar heats, and the productive resources of these respective countries have suffered in proportion. From the peculiar character of soil in certain localities, the destructive effects of forest denudation are seen in well-worn ridges along mountain sides—vast gullies are torn out by storms and deluges of rain and forever rendered unfit for any human purpose. The traveler among the Apennines is often struck with this phenomenon, without being aware that its cause lay in the extinc-

² Forest enactments were at one time so rigid in Switzerland, that the death penalty was imposed on those who felled trees in certain woods.

tion of the woods on all the mountain slopes. The project of reinvesting the great Campagna of Rome with its lost forest has awakened attention in her public councils; but the great difficulty has interfered here which will always intervene when forest preservation and restoration come up as a question of state and national policy, viz : where is the separation between the interests of the individual and those of the state to take place? or who shall define the limits of each? The Campagna possesses great fertility of soil, and being adapted to the culture of the oak, as is proved by the existence of a grove of evergreen oaks, called the grotto of Egeria, near Aricia; as well as pine, evidenced by those growing near the tomb of Pompey —its redemption from the blight that now lies upon it in its malarious climate could be accomplished by some magnificent scheme of forestation. Then would the foliage of its oaks and pines waft their oxygenated stream of life to the fever-stricken citizens of Rome.

The island of Sicily has almost become a waste from the effects of forest devastation. It has scarcely a stream that lasts through the summer, and few perennial springs. The soil has suffered deplorably for want of sufficient irrigation, and the denudation of the hills and mountains, even to their summits, has exhausted that great reservoir of nature and impoverished the land.

Although Greece with her thirteen species of oak presents many a verdant grove, and tracts of woodland in which trees of noble growth throw out their ample branches and yield a grateful shade to a parched soil; yet the ancient classic land, in common with Asia Minor, has been shorn of its original forests, and its characteristic feature is represented in steppes and unproductive barren wastes, and a new aborescent growth can scarcely be awaited. Turkey possesses the Balkan mountains, whose northern side is covered with a heavy growth of timber, while their southern declivity is, comparatively, bare. Portugal has experienced a like denudation of its woodland surface. Being under no control of government and in the hands of individual proprietors and communities, the forest has had no protection and no measures have been resorted to with a view to its restoration. Of Spain it may be said that at one time one-fifth of its territory was forest; but by repeated reduction of woodland surface the proportion has dwindled to but nine per cent. Originally Spain was covered with dense forests; the immigration of Phœnician colonies in search of silver in the Pyrenees

augmented the population, and the destruction of her forests ensued. In different portions of this land noble forests still exist, in which are seen the oak, beech, fir and chestnut in towering beauty, and there remains a wealthy supply of timber adequate to all the wants of the country in its present condition. But, on the whole, the destruction of the useful woods has been indiscriminate and improvident; and Spain, like all other countries, has suffered under the abuse of that universal law that renders both soil and climate contingent on the extent of forest territory.

In studying French forestry, we find that prior to the year 1750, the kingdom possessed a woodland domain that embraced one-third of its whole surface. Between 1750 and 1788 the great destruction of timbered land took place, and a still greater diminution ensued during the time that elapsed between 1788 and 1792, when the government disposed of its woods to private purchasers. After the serious loss of timber that now began to be felt in France, conservative measures were adopted, and up to the year 1825 French territory embraced 20,250 square miles of forest—less than one-third, however, of what it was in 1750.³ The origin of all this waste is to be traced to causes of an arbitrary nature. In the year 1862, two venerable forests, in the vicinity of Paris, of 5,000 and 9,000 acres respectively, were hewn to the ground, and large quantities of naval timber, cut by the commission of the French Marine, were left for want of transportation to decay in the woods. Southern and western France are entirely denuded, and most of the northern provinces are in no better condition.

To show the effects of forest devastation we are told that, in the Department of Ardeche and Loire, districts comprising 41,000 acres have become entirely unfruitful, and turf and sod have been substituted for better fuel. Along her southern borders France is exposed to storms sweeping across her mountains more fiercely than ever, since shorn of their ancient woods.

From the time that Provence became a prey to forest devastation, a desolating atmosphere and colder seasons assailed the extensive olive groves, and great destruction took place among them. To the same cause may be traced a degeneracy in the general culture of both the orange and olive tree throughout France. In several departments drought and inundations alternately have become the

³ Present area of forest 16¾ per cent.

terror of the inhabitants; fuel is extremely scarce, and perennial springs have disappeared. In the valley of the Romanche fuel is said to be so entirely unattainable, that the suffering people are obliged to manufacture its substitute from dried cow manure; and to economize it to its fullest extent, bake their bread but once a year. In the valleys near the rivers Drac, Romanche and Durance, many live during the winter in caves, or lie among their sheep, to obtain the life-sustaining warmth which is denied them in the total want of fuel.

In the face of these and similar appalling deprivations, the Prefect of the Department transmitted a report to the government, stating that these evils would continue to multiply throughout France, unless some early and positive measures were resorted to in order to arrest the destruction of timber, and institute a new growth in place of that which had been destroyed. A sensible diminution of population has been the result in all the devastated provinces. To illustrate the destructive effects of felling timber on the declivities of hills and mountains, where land has been under cultivation, it is stated* that in the Department of des Basses Alps, in 1842, there were nearly 250,000 acres of arable land, and in 1852 scarcely three-fourths were left—60,000 acres had been destroyed by the washing of the rain storms. Since Mount d'Or was cleared of wood, the river Seine, at Paris, shows a rise and fall of thirty feet; whereas the Emperor Julian, who lived 331-363 after Christ, and resided six years in that city, informs us the depth of that stream showed but little variation in winter and summer.

Some of the most striking evidences of the unfavorable effects of the loss of forest in France may be seen along its extensive sea coast, in the formation of the Downs, which consist of a series of sand hills eight to ten meters in height by four hundred meters broad, thrown up by the ocean's surf, and making innovations upon the land as it became divested of timber. The whole extent of country bordering the sea where the Downs exist, was at one time a dense forest. To counteract this wide-spread desolation, forestal laws have been enacted in France, and a system has been newly organized as late as 1860. But the good results of the reform have as yet been small and inadequate to the requirements of the people. The cause of this inefficiency of forestal laws may be traced to the

*Clavé, *Études sur l'Economie forestiere.*

general belief that agriculture yields a better return than arboriculture; an argument that applies to all other countries in which the agricultural system, supported by a dense population, comes into competition with forest culture. In France excessive taxation on woodland, disproportioned to that levied on cultivated land, furnishes another inducement to the proprietor to clear his forest possessions and convert them into more productive property.

In Belgium a similar diminution of forest land has taken place, and the most striking picture of denudation may be seen in the forests of Ardennes. The meteorologists of England have made the observation that rain has sensibly diminished in that country since the year 1815; and predict that, should droughts continue to increase for the next hundred years in the same ratio they have done, it will prove detrimental to the agriculture of the country. The cause of this phenomenon is traced to the loss of woodland possessions, which, along with the augmentation of population, has kept pace with that destructive element and acquisitive passion of the Continent and the world in general, that require the forest to administer to present necessity, and ignore the claims of a coming generation.

Sweden and Norway are wont to dwell in the imagination as countries of wild and impenetrable mountain forests, of inexhaustible tracts of timber land, where nature still sleeps in all her primeval solitude. But even in these countries the woodman's axe has, in certain localities, made fearful havoc; the denudation of mountain tops has protracted the coming of the early spring in many of the valleys.

In Sweden forest organizations exist, but the system is without the efficiency that is indispensable to promote the ends of a real forest culture and preservation. The large extent of territory of which the officials of such an organization must needs take cognizance, renders all efforts to ward off depredation very imperfect. This fact presents a great obstacle to any scheme of forest preservation in our own country, and it would necessarily have to awaken some new ideas in the minds of our legislators, and suggest a plan similar to that which Sweden has adopted. Agricultural associations, for instance, rent tracts of clear and productive land of the proprietor, allow it to be tilled and planted for twenty years, and then restore the full possession of it to the owner, enriched by a new and

vigorous growth of timber. Extensive conflagrations are an evil that is much deplored in Sweden. These fires originate in the same cause as elsewhere; the woods are made a willful and wicked sacrifice to the needy claims of the poorer classes, who are in want of grazing land, and thus resort to the expedient of annihilating vast masses of timber to make room for their herds. In anticipating such an event as the universal denudation of woodland over the whole of the eastern and western continents, we can still fall back upon those apparently inexhaustible resources afforded us in the expanse of Russian forest, both European and Asiatic, the boundless tracts of gigantic forests of Brazil, and all that stretch of woodland territory known as the British Possessions in North America, and the north-western portion of the United States. Yet notwithstanding all the munificence that nature has displayed in these vast regions, the timber they furnish is and will remain of little practical value until a more fully developed civilization shall furnish the facilities of transportation of timber and fuel to a contiguous market. The Imperial woodland territory of Russia is estimated at 12,535 millions Hectares ($2\frac{1}{2}$ acres), an extent of land that would seem to promise a perpetuity of timber for unknown ages. But in reference to the great superfluity of timber in Russia, the same remark may be applied both to that country and to America. The redundancy of the forest exists where least needed; whereas in those localities where population has occupied the earth in dense masses, the salutary influences of the woods is gone. No human forethought has been able to arrest the course of that destructive policy which has led to the disappearance of rivers and streams, and the other alarming results we have already pointed out. Clearings in Southern Russia have been made to such an extent, that fuel in a great measure is unknown. The great artery of Russia and the largest river in Europe, the Volga, is said to be diminishing and more difficult to navigate every year. The steppes are increasing in extent and moving westward, taking the place of an extinct luxurious growth of oaks and firs. Conflagrations on the largest scale cause a ruthless waste of Russian timber. They are of constant occurrence, and originate in the same cause both in Europe and America—the herdsman's desire of obtaining pasture. In the year 1868 as many as 840 conflagrations took place in the government Novgorod, between the 1st of May and the 1st of October. It is a lamentable reflection that in this wanton

annihilation of the ancient forest, trees of the noblest growth, whose counterpart can never be restored, are lost to us forever. Neither replanting nor all the arts of modern arboriculture can reinstate the primeval forms of the extinct oak. That chemical element to which they owe their creation is lost to the soil for centuries; and the accumulations of time will be needed to impart those qualities to it that originate and sustain the herculean timber of former ages.

The forest system of European Russia comprises six Inspections, each having its presiding officer, who commands his several districts with the aid of a large corps of subordinates. Each of these lower governments employs numbers of chief foresters with their full complement of aids, the whole constituting a powerful forest administration.

Leaving Europe and passing over to Africa and the tropical islands, we find that in those portions of the northern side of Madeira, where the earth is covered with an ample growth of wood, rains are abundant; whereas, on the south side, where the land has been entirely cleared, no rain is seen from May to October. On the island of Teneriffe, the same conditions exist; those portions that lie nearest the forest-clad mountains are better irrigated and more fertile; while the bare portions near the sea, on the south side, are parched for want of protection against the heats of summer.

Upper Egypt has been a sufferer from the time the timber along the borders of the valley of the Nile was prostrated by the Arabs on the side facing Arabia and Lybia. In Lower Egypt, on the contrary, a remarkable meteorological change was effected by the exertions of Ibrahim Pasha, who, some thirty-four years since, planted eighteen millions of trees, and thus induced abundance of rains in their appropriate seasons.

In the study of European forestry, the material of an extensive literature, we shall discover that the genius of poesy and that æsthetic condition of the soul that seeks the woods and shady glens for its sustenance, have joined hands with science, and dived into the more profound causes and movements of the vegetable world. The European forester is a habitual denizen of the woods. He watches the growth of his favorite grove from infancy to maturity, and loves to associate with the Dryads, for they are the imaginary companions of his solitary strolls through the shady domain which he protects, and over which he presides. European dendrology furnishes us

almost the same family of trees that are natural to our own hemisphere, and in applying the arboriculture of the countries we have reviewed to our own, we shall find the same laws of vegetation and climatic influences that are upheld there will be applicable here, when we reach that stage of our history in which forestry will become a permanent pursuit. We shall learn from the scientist of the woods that the larch of the far northern regions (*Larix Sibirica*) is the most enduring specimen of all arborescent forms. Allied to this is the larch of more temperate zones (*Pinus Larix*). These grow and thrive only in their appropriate spheres, and will resist the acclimation of southern regions. On the mountain heights nature has found a congenial home for the fir, at an elevation of 2,000 feet above the sea's level. Seeking a milder temperature, the pine flourishes in a lower position. The birch is also a hardy tree, and suffers great extremes of heat and cold. The oak, which is deservedly named the "lord of the forest," bears many vicissitudes of climate, but seeks a genial soil and a lower hypsometrical position than the needle woods (coniferæ). The numerous varieties of the quercus, with the ash, walnut, maple and beech, so entirely exhaust the soil of its original elements, and particularly of potash, that they are rarely succeeded by their own kinds; and hence where a deforestation of oak and its kindred species takes place, the fir, chestnut and pine become the occupants of the soil. In instituting an American system of forestry, therefore, we shall have to investigate the applicability of these laws of dendrology to our own soil, climate, and the elevation of the hills, mountains or lower localities we design to plant with a second or third growth of trees. In several of the German States the supervision of the forest has produced an elaborate system of State economy (*Staatsforstwissenschaft*), and the administration of its various interests and education of its officers and employes, demanding thought, education and scientific training in schools established for initiation into the profession of forestry, have lent it a dignity of high degree.

The history of German forestry dates back to the 14th century. In the year 1300, the timber of the woods was of little or no value, and Henry VII. took the first steps towards the protection of the sylvan interests of his realm, and the restoration of its devastated portions.

Districts were created, over which officers called Rangers were

stationed, whose business it was to roam through and watch over them. As early as 1713, we find the first indications of a literature on the subject; and at various times during the last century, authors appeared throwing light upon the subject of forestry. The first school for the promotion of this science was established by Herr von Zauthier, on the Harz, 1772.

In addition to the valuable monograph we have already named, much information can be drawn from the work of Theo. Ebermayer, *Die Lehren der Forstwissenschaft*, München, 1872. Also from Grunert's *Forstliche Blätter*, a periodical publication, which takes note of all the recent developments in forestry under the Prussian government.

The politico-economical aspects of the subject can be studied in the concise monograph of August Bernhardt, on *Staats forstwissenschafts lehre im 19th Jahrhundert*, Leipsig, 1873. The treatise of Bernhardt is characterized by some fine philosophical abstraction, and probably too much to be of any real or practical use to the American statesman. His aim is chiefly a compendium of forest literature, from a politico-economical point of view, during the 19th century. The two schools of thought on the relations of the state to forest property are well represented in Bernhardt's work. The one class defends the rights of the individual to forest domain, while the other supports the guardianship of the state. Bernhardt enters into the spirit of the two contending schools with much earnestness.⁵

J. H.

WAS SHELLEY CONSISTENT?—I.

SHELLEY was one of those strange dreamers who in some of their idiosyncrasies resemble madmen. The public in their opinion of him have been widely divided. The majority of his cotemporaries pronounced him a bad and dangerous man, while there were a few who loved him almost to veneration; and such was their intimate acquaintance with the facts and fancies of his life, such their admit-

⁵To furnish some idea of the amplification forest literature has reached in the German, French, Italian and English languages, we may add that the *Bibliographie Forestière Française* enumerates no less than 620 different works on the subject.

ted mental ability and undoubted candor, we are forced to respect their opinion, and, if possible, seek its reconciliation with that of the multitude. It is no wonder that such diversity of sentiment has prevailed, so rare is it that in a single brief life there has been crowded so much of wild romance; that in a single mind there has been linked such puerility with such transcendent genius, such penetration with such purlblindness; that the same heart has been capable of breathing out such manifest tenderness and spotless purity of affection, and also of abandoning, without any outward sign of remorse, a wife and babe, and afterward for a time openly trampling upon every civilized marriage law without shame. Is there a key to his character, or must he forever remain to us a mental mystery?

Here is a being born with both wings and club-feet. At times he displays peerless powers of flight, striking the stars with his strong pinions; at times he seems an awkward imbecile, stumbling among the stones. Some, dazed by his wings, thought him an angel; others, having first caught sight of his club feet, suffered the deformity to inflame their imaginations until they believed him a veritable man-monster. Both parties erred, yet each could cite facts in its favor; for of all the human eccentrics that have come to the surface of society, Shelley the most resembled an angel—in ruins.

By a careful analysis of the five prime elements of his character, idealism, individualism, enthusiasm, love and hope, their morbid development and their intimate interplay, I am confident we can successfully account for any apparent dualism either in his emotions or motives, that we will be able to discover alike in his life and writings a consistency as complete as comports with human frailty.

As an idealist he stands without a superior, perhaps without an equal, in all history; and his creative faculty was marvelous not only for its strength but its strangeness. The phantoms of his thought were often such weird ghosts and so sharply outlined, he fled from them in the wildest terror, convinced that they were fixed facts outside the brain rather than fitting fancies within it. The earliest recollections of his boyhood are full of this trait. The ceiling of a certain low passage in the old homestead was riddled with holes by the stick of this little mischief in search of some new chamber where the strange folk of his fancy might find suitable apartments. The boy used to gather his sisters about him when they were but wee things, and hold them in rapt attention with his impromptu tales of fairy wonder.

They were told that the deserted garret was the laboratory of an alchemist who had been living up there alone so long, busily bending over his retort and crucible, that his beard had turned white and the world had forgotten him. They waited with all the confidence and keen anticipation of young life for that promised "some day" when they should visit him, and perhaps take a sip of his elixir or fill their hands with gold he was then learning to make. All the queer noises about the premises were distinctly traced to the great tortoise in Warnham pond. The myth of the old snake that haunted the garden for upwards of three centuries till carelessly cut in two by the scythe of the gardener, received as grave a rehearsal as if it had been an historical fact. By the magic of grotesque costumes he would change his sisters into ghosts and hobgoblins, then with them marching behind him would wave a fire-pan over his head with flames bursting dangerously from every crevice, himself the arch-fiend breathing forth the fire and smoke of the pit. He was accustomed to frequent the charnel-house of Warnham church, and await the return of lonesome spirits to look in upon the crumbling dust they once tenanted. These visits were by no means without fear, but the fancy of falling in with such strange company fairly infatuated him. When a school-boy at Eton he was known time and again to steal out of his boarding-house with all possible secrecy and cross the fields at the dead hours of night until he reached some running stream; then, standing astride it, three times to drink of its waters out of a human skull, in hopes through such incantations, taught him by his glamour books, to get a glimpse of the devil and perhaps pass a word with him.

The incredible quickness with which he mastered his studies, left him abundant leisure to give loose rein to his unpracticed fancies, and they soon whirled him along at perilous speed. Diffidence, acute sensibility, love of study, with lack of robust health totally unfitting him for social excitements, he naturally at the first attempted to repair the loss with the haunted castles and the bandits of the blue-books that came within his reach. The Terrific, in all its indefinable forms, vague hints of that dim borderland of mystery that lies just beyond the real and the seen, seemed to weave a spell over his turbulent spirits. In his night rambles he sought out unfrequented places, attended only by such wraiths and apparitions of the imagination as the genius of a Coleridge, a DeQuincey and a Poe has made imperishable. The few fragments that have floated down

to us of the poems and prose fictions that he wrote in the dark days at Eton, bear unmistakable impress of the morbid intensity and dangerous leanings of his mind; while through their crudities at times break prophetic gleams of that sublimation of thought and marvelous splendor of diction that characterized his later works.

His brain and his nervous system were of the most delicate texture. The microscopic machinery of that butterfly, to which Hawthorne's "Artist of the Beautiful" gave a momentary mimic life, was not less suited to the world's unthinking baby-clutch. They both ought to have been kept under glass. In one of his letters he remarked: "My feelings at intervals are of a deadly, torpid kind, or awakened to such an unnaturally keen excitement, that, to instance only the organ of sight, I find the very blades of grass and the boughs of distant trees to present themselves to me with painful distinctness." Grating sounds gave him positive torture. An amusing instance is related of him, illustrating this. Christie, an untidy Caledonian girl, was servant in the house in which he and his first wife were once boarding. Some of his friends, knowing his weakness and fond of a joke, would draw the girl into conversation that they might see Shelley writhe under the sound of her harsh voice. "Have you had any dinner to-day?" "Yes." "And what did you get?" "Sauget heed and bannocks," would be her invariable piping reply. The poet, almost distracted, would rush into the corner and stop his ears. "Oh, Bysse, how can you be so absurd; what harm does the poor girl do you?" "Send her away, Harriet," he would gasp; "oh, send her away; for God's sake, send her away!" How vividly these facts revive Poe's picture of that remarkable recluse who played so tragic a part in "The Fall of the House of Usher?" Occasionally Shelley fell a victim to somnambulism, and there was a sort of waking dream in which he often lay wrapped. He would start from its spell trembling like an aspen-leaf. His eyes would flash and his thoughts grow strange and spiritual. This was no nightmare. It was no ordinary fit of abstraction. It was that dangerous ecstasy when the impatient soul steps upon the threshold of its tenement of clay, and thinks of flight.

There is a prose fragment of his in which he describes a by no means extraordinary scene. At the close he says: "I suddenly remembered to have observed this exact scene in some dream of long ago. Here I was obliged to leave off, overcome with thrilling

horror." "I well remember," remarks Mrs. Shelley, "his coming to me from writing this, pale and agitated, to seek refuge in conversation from the fearful emotions it excited." While in Italy, near the close of his life, he was one evening walking with his friend, Williams, along the terrace, watching the play of the moonbeams on the water. Complaining of unusual nervousness, he suddenly and with great violence grasped the arm of his friend, and fixed his eyes in a wild, frantic stare on the white surf that broke at their feet. Williams seeing him thus agitated, asked whether he was in pain, but he only answered, "There it is again—there!" After the paroxysm had passed, he stated that a naked child had just risen from the sea, smiling and clapping his little hands at him. The vision of this trance was so intensely vivid, it required no little philosophical argument on the part of his friend to convince him it was only a dream, and to call his crazed thoughts back to the sad reality that his dear boy lay under the daisies still.

Once Byron, Shelley, Monk Lewis and the ladies of their households were accustomed, under Lewis's leadership, to spend their evenings in telling ghost stories. The fictions were not only original, but impromptu. They were meant but for mental gymnastics, simply to serve as wings for the hours. It was a brilliant circle, and out of the murky atmosphere of these talks there came to Mrs. Shelley the first hints of her famed "Frankenstein." As might have been anticipated, Shelley's fancy finally fired, and before its fierce heat his reason melted away like wax. It is told us that on one of these occasions he began a story, but was soon compelled to stop and hasten from the room. One or two of the company followed him out, and found him in an almost complete nervous prostration. After he had somewhat recovered, he said to them that a most beautiful woman had appeared to him, leaning over the balustrade of the staircase and fixing upon him four flashing eyes. As some one has suggested, his mind was of such exquisite delicacy it seemed throned on the very pinnacle of genius, where but a breath might precipitate its fall.

He was doubtless the victim of hallucination when in North Wales he thought a night tramp had fired at him. He kept the house in an uproar until morning. On the next day he even went so far as to furnish the officers of the law a sworn statement of the case, gravely detailing many particulars, and as soon as it was pos-

sible fled the country. In his correspondence with William Godwin we find him claiming that he had been twice expelled from Eton on account of the advocacy of his beliefs. The story was utterly false; but I see no reason for charging him with intentional falsehood, as has been done, for he was proverbially truth-loving, standing ready even to suffer martyrdom for its sake. We have seen with what readiness and frequency he converted his intensely vivid fancies into accredited facts. It was perfectly natural for this strangely-gifted boy to first imagine himself a bold defender of his beliefs and visited with the wrath of the bigots, then afterward to look upon his visions as memories of what had actually occurred.

As a writer he stands without a rival in his power to impersonate thought. The multitudinous gods of ancient mythology, which were the creations of long centuries of misguided worship, scarcely outnumbered that vast company of intelligences with which his fruitful fancy peopled the universe. Everything as it passed through the alembic of his mind was refined into a splendid ideal. The material stood to him but as a manifestation of the spiritual. Not only the forces in nature, but even the most subtle metaphysical discriminations, became palpable personages before him. On every page of his principal poems, except the *Cenci*, in almost every line, they start into life. In the *Witch of Atlas*, in *Adonais*, and in the last acts of *Prometheus Unbound*, his creative powers seemed to culminate. To the many these Alpine peaks of song are lost in cloud. Few have ever climbed their dizzy heights: none have ever seemed able to live long in their thin air. I had designed to transmit to my page some of their marvelous creations, but on making the attempt I found them dissolving at my touch like crystals of frostwork.

Byron pronounced him the most imaginative writer of his time, and this criticism acquires peculiar emphasis from the fact that Shelley was the cotemporary of the Lake poets. Macaulay asserts that inspiration can be more safely predicated of him than of any English author. His mind, while he was engaged in composition, boiled like a cauldron. So great was the intensity with which it wrought, his body shook as in an ague fit. Bayne, the Scotch critic, claimed that his was the princeliest imagination that ever sublimed enthusiasm or personated thought. Gilfillan called him the *Eternal Child*, and Mrs. Browning alluded to him in her *Vision of*

the Poets, and her words are pregnant with meaning, as one "statue-blind with his white ideal." Shelley lived in perpetual childhood. Its life-like illusions seemed woven into the very texture of his brain. Neither his face nor his faculties ever grew old. His kingdom was cloudland. He was a stranger, ill at ease, in any other.

We now pass to the consideration of his second marked characteristic, his Individualism. Scientists have discovered a single plan underlying nature, certain fundamental ideas or great types introducing order and unity everywhere; so that now in their text-books they go back through individuals, species, genera, orders, to the first great classes of creation. This methodic development, this prevalence of law, they have found even in the subtlest of human thought. But they have further discovered that creation was not the work of an instant, but the evolution of ages; that an impulse or a series of impulses toward heterogeneity has been imparted to all things, unfolding from this initial unity an infinite variety, rendering life-forms continually more complex, from the monad up to man. The vigor of this impulse still remains unabated; for through it comes that individualism in whose healthful development, and in that alone, this broad plan in nature reaches final consummation. In the present stage of advancement, although there are no two men who exactly resemble each other, who have no distinguishing personal traits, yet, with the majority, points of resemblance rather than of difference predominate. Out from these mainly homogeneous masses, however, there now and then appears one of overmastering individualism, breaking through the conventional crusts that have gathered upon human thought. They are the revolutionists God lets loose on the planet. They usually come with superabundant personal positiveness and singularity. Were it not so, I question whether they could command a hearing. Not only must their personal tastes and opinions be unique, but there must be an implicit faith in their soundness, an exalted view of their value, above all an inward, irrepressible impulse to state and stand by them at every hazard. This impulse must be of such a character that opposing prejudices will but fan it to fiercer heat. Only those thus possessed have ever met success, or ever can. Others endure for a time, but at last sink down among the undistinguishable atoms of the mass. With this individualism Shelley came surcharged, so that when society used harsh means to repress it, it found an infuriated tiger upon its track.

When a beautiful, bright boy, eager to know, sympathetic, sincere, quivering with acute sensibility, his head already in the clouds, his health by no means firm, he was thrown in among a wild troop of school fellows at Eton. In English schools a pernicious custom then prevailed of forcing members of the lower class to perform menial services for those in the higher. Fagging, as it was called, had grown into a system of petty tyrannies. Readers of Tom Brown at Rugby, will readily recall Hughes' spirited sketch of his hero's gritty fight with an insolent chap in the fifth form, who had presumed too much under cover of this custom. Shelley, when called upon to fag, peremptorily refused, not because he was averse to labor, nor because his father, was a baronet; but he looked upon the demand as an invasion of his personal rights. Then they tried what virtue lay in cuffs and taunts. Instead of breaking his spirit, they kindled it into fury. Those braggarts turned pale and grew weak with fear before his bursts of passion. The war extended over many months and numbered many battles; but he conquered at last, though the bitter experiences of those days, his loneliness and sense of wrong, burnt into his soul like a hot iron. His touching lines at the opening of "The Revolt of Islam" tell us that twelve years afterward this wound was still painful and bleeding. An old Etonian remarks, "For years before I knew that Shelley the boy, was Shelley the poet and friend of Byron, he dwelt in my memory as one of those strange, unearthly compounds, which sometimes, though rarely, appear in human form. He was known at Eton as the mad Shelley. Sometimes his rage at their taunts became boundless. They fairly raised the demon in him. I have seen him surrounded, hooted, baited, like an enraged bull, and at this distance of time—forty years after—I seem to hear ringing in my ears the cry which Shelley was wont to utter in his paroxysms of anger."

When a student at Oxford, he unfortunately fell into the hands of English and French atheists, who stripped him of nearly every opinion of value. That Shelley could have become a convert to creeds so cold, so humiliating, so abandoned of hope, strikes one at first as a mental impossibility. The natural temper of his mind was, as we have seen, profoundly idealistic, his thoughts revelling in the unseen. Rarely one ever evinced such capacity for companionship; none ever more intensely longed for it. Dullness and brutality had already driven him into social exile, so that almost the only avenue

to sympathy left him lay through this, his wonderful gift of spiritual perception. In what especial need, then, he stood of some comforting consciousness of the presence of angels and the kindly overshadowing of the Divine love. He also had the credit of sharp discrimination. His writings everywhere abound in delicate shades of thought. He undoubtedly possessed a taste for abstruse reasoning, for he once seriously debated whether he should not adopt metaphysics for a life study.

Hogg, his college companion, attempting an explanation, offers two suggestions; first, that skepticism, seemingly uncongenial to one of fervid imagination, had attractions for him perhaps from the fact that he took such keen pleasure in discussion, and found in this so admirable a position for defensive warfare; second, that destruction, if on a grand scale, is as fascinating as creation to one loving excitement and change. I cannot take so low a view of Shelley as to feel satisfied with this solution. There is no doubt that he loved disputation, and that he loved excitement and change; but he loved truth more. He was of too sad and earnest a temperament to argue against his own convictions. His afterward life-long loyalty to them proved him no trifler. The growth and gradual settling of his beliefs speak volumes for his mental integrity. To lean Sampson-like against the pillars upon which rest the world's religion, that he might for an instant hear the crash of falling timbers, would indicate a curious love of excitement in one conscious that his own hopes as well as those of others must lie buried in the ruins.

Coleridge's thoughts went deeper. In a letter to a friend he remarked: "I think as highly of Shelley's genius, yes, and of his heart, as you can do. Soon after he left Oxford he went to the Lakes, poor fellow, and with some wish, I have understood, to see me; but I was absent, and Southey received him instead. Now, the very reverse of what would have been the case in ninety-nine instances of a hundred, I might have been of use to him and Southey could not; for I should have sympathized with his poetic, metaphysical reveries, and the very word metaphysics is an abomination to Southey, and Shelley would have felt that I understood him. His discussions tending toward atheism would not have scared me; for me it would have been a semi-transparent larva, soon to be sloughed, and through which I should have seen the true image, the final metamorphosis. Besides, I have ever thought that sort of atheism the

next best religion to Christianity; nor does the better faith I have learnt from Paul and John interfere with the cordial reverence I feel for Benedict Spinoza. As far as Robert Southey was concerned, I am quite certain that his harshness arose entirely from the frightful reports that had been made to him respecting Shelley's moral character and conduct—reports essentially false, but for a man of Southey's strict regularity and habitual self-government, rendered plausible by Shelley's own wild words and horror of hypocrisy."

But explain his conversion and profoundly regret it as we may, his course afterward was not only highly characteristic, brimful of individualism, but was prompted by motives from which it is impossible for us to withhold our praise. As soon as he had given his assent to the creed of the atheists, he resolved on the overturn of the entire Christian world, and even hoped for it. Of course only a boy in his teens, and a boy, too, with his peculiar combination of qualities, could have conceived of such a Quixotic scheme, or have entertained it for an instant. He began his work as a propagandist with the issue of a two-paged pamphlet on the "Necessity of Atheism," sending a copy with a circular letter to the twenty-five heads of colleges at Oxford, asking their assent to its sentiments. Those grave scholastic dignitaries replied by ordering his instant expulsion. Perhaps they meant well, but their conduct was certainly inexcusably inconsiderate. It was in great part the result of that revulsion of feeling that had swept over Europe at the close of the French Revolution. The curdling horrors of that reign of license and irreligion had caused an indescribable dread to creep into the public mind. A severe censorship, in consequence, rested on platform and press. We have since discovered that this stifling process was the very cause of the evils it now sought to avert. Had one of those panic-stricken professors taken the pains to visit Shelley in private, considerably listened to his objections to Christianity, and met them with the proofs, as Coleridge would have done, he would have found in him an apt and candid scholar, and without much question would have won over to his cause an earnest and able advocate. None was ever more open to conviction. He craved knowledge, was of reflective habit. His intellect was marked alike for its strength, its compass and its integrity. Though of deep convictions, his restless spirit of inquiry always saved him from becoming opinionated. He strongly inclined to religious thinking. Indeed, what Novalis once remarked

of Spinoza, that branded atheist, who so deeply impressed him with his religious fervor, I believe, was equally true of Shelley. He was "God-intoxicated." To know truth and fearlessly to use it, had grown into an enthusiasm; and that very act which called down on him such wrathful lightnings, was one of its unmistakable signs.

To none would an appreciative sympathy have been more welcome; upon none would it have wrought greater good. That his life had been singularly pure, even his bitterest enemies durst not deny. Being still very young, only eighteen, of slight experience, with an immature judgment, with no fixed habits of thought, radical changes might readily have been wrought in his beliefs. Nothing but excessive fright could have induced these learned men of Oxford to let slip this golden opportunity. They must have adjudged him smitten with incurable leprosy, to have thrust him out with such cruel haste, branding him with all the ignominy that lay within the bestowal of one of the most powerful corporations of learning in the world. A German University would have taken up the gauntlet which Shelley thus threw down, and not have suffered his belief in the impregnability of his position to become confirmed by so cowardly an answer as he here received.

The boy, thus rudely rebuffed, sought an asylum in his father's house, and should have found one. But the cold formalist, mainly interested in keeping the outside of the platter clean, sternly rebuked him, giving him to understand that unless he conformed to the religious usages of the family he must never again step foot on his threshold. Shelley, loyal to his convictions, promptly refused, although he knew that disgrace and poverty would join him company. If the doctors blundered, the father surely fell into crime. Granting that the boy was the most impracticable of dreamers, and that had his dreams come true, the moral world would have passed into eclipse, yet the fact that he was a mere boy, and nobly aimed at benefiting his age, should have summoned to his side the kindest influences of home. Yet he was left upon the streets of London, to battle single-handed as best he could. It was a sad sight.

Shelley's individualism, already strongly marked, now passed at once into blind frenzy. Indeed, it would seem that he never afterward fully recovered his right reason. Queen Mab, begun a year and a half before as a purely imaginative poem on dreams, he at once converted into a systematic attack on society, doubling its

length and appending to it elaborate notes, in which whatever law or custom tended in the least to restrain the fullest personal freedom, was passionately condemned as tyrannical. This delicately-nerved dream-creature, thus trampled on by professing Christians, tortured but not tamed, learns to regard Christianity as the foster-mother of crime, an organized oppression drenching the earth with the blood of innocency. Obedience to God he pronounces the servility a trembling slave pays a tyrant. As all religions threaten punishment for disbelief, a purely involuntary act, they, he claims, should all alike pass under condemnation. There is no personal Creator. Vulgar minds had mistaken a metaphor for a real being, a word for a thing. There is at best but an impersonal, pervading spirit, coeternal with the universe. Necessity is mother of the world, true liberty a mere shadow, a myth, a fable. Crime is madness, madness a disease, disease the sole result of meat diet. Prometheus chained to Caucasus personates mankind, who having applied fire to culinary purposes, or, in other words, having changed the character of their food, have become the helpless victims of the vulture of disease. Wealth is a power usurped by the few to compel the many to labor for their benefit. The rent-rolls of landed proprietors are pension lists, signs of sinecures, which reformers should no longer suffer to exist. Laws which support this system are the result of the conspiracy of a few, and would be swept from the statute book were not the masses ignorant and credulous. Law even pretends to control the intercourse of the sexes, in face of the fact that the very essence of love is liberty. Marriage is utterly unworthy of toleration. As well bind friends together by statute as man and wife. The present system of constraint makes hypocrites or open foes out of the majority of those thus bound. "In fact, religion and morality, as they now stand, compose a practical code of misery and servitude; the genius of human happiness must tear every leaf from the accursed Book of God, ere man can read the inscription on his heart. How would morality, dressed up in stiff stays and finery, start from her own disgusting image, should she look in the mirror of nature."

Thus we see Shelley pouring out invectives against every form of religious faith, against every safeguard to property or pure morals; an indiscriminate iconoclast, an agrarian, a free-lover, a fierce foe to all present forms of social order.

His mind cooled somewhat in after years, as his life grew more tranquil. Some of his views he modified; some, totally changed; some, however, he carried into practice and tenaciously maintained until death. He lived to advance as far as the Unitarian creed, and to be a firm believer in immortality. Such was the drift of his thought, such his increasing study of the Scriptures and unfeigned love for them, his natural candor, his tireless search for truth, his profound respect for the character of Christ, it is by no means improbable that had a few more years been spared him, and they warmed and lighted by sympathizing hearts, his respect would have turned to love, perhaps to adoration.

His opinion of marriage underwent little change. Had he followed his own inclinations, he would have lived with both Harriet and Mary without its sanction, utterly regardless of the world's opinion. He consented to its rites, not because he quailed before the approaching storm of calumny, but because principally upon them, being the weaker party, it would spend its violence. Even as it was, he and Mary lived together a full year without it, before Harriet's suicide secured him the divorce refused by English law. Shelley's idealism and individualism, originally given in such large measure, now almost preternaturally developed, render it possible, in my judgment, for Shelley to have been prompted by the purest motives in both the advocacy and practice of principles which, if generally adopted, would have corrupted and finally overturned society.

I now pass to his third most noticeable trait,—his enthusiasm. In this, too, from the first he stood preëminent; and in this, I regret to add, there soon appeared symptoms of disease.

The instances in his life, which I have already given under other heads, equally illustrate the intensity of his temperament; and so intimately is it also associated with his capacities to love and hope, it will again appear when I treat those divisions of my theme. But there are certain phases demanding a more special notice, and to them I now briefly direct attention.

His passion for boating was very remarkable. It was as impelling and as indestructible as any instinct of which a bee or a beaver becomes possessed. It appeared first in the making and floating of paper boats. Whenever he approached any little pond in his rambles, he would linger about its margin by the hour, held as by the

spell of enchantment. The keen wind sweeping across the common would cut his delicate face and hands, and cause his frail body to tremble with the cold; but with thoughts undiverted he would keep on twisting his bits of paper into tiny crafts. These as fast as finished he would launch, watching them with absorbing interest as they drifted away until they either capsized, or sank water-soaked, or safely landed on the opposite shore, his imagination meantime transforming the pond into a rough rolling sea, and his bits of paper into stately ships wrestling with tempests or dashing upon rocks, or safely riding at anchor at last in the offing of some foreign port. He always had one or more books in his pocket; and however expensive the volume, its fly-leaves, although he never disturbed the text, were prized only as excellent ship-timber; and it was utterly impossible to entice him from the spot so long as there was an available scrap of paper about his person. While residing at Bracknell he found a whimsical gratification for this mania for navigation,—secretly setting sail on a stream near by in one of the tubs of his hostess. Its bottom falling out, he launched a second, but this meeting a similar fate, a third was launched from its ways in drydock, until there was not a single one left. Washing-day came. A search was made for the missing tubs, but in vain, for this strange mischief-maker had disappeared as well as his strange fleet.

A large portion of his life he spent on the water. There he found health, and freedom, and lightness of heart, and mental exaltation. His poems abound in river scenes, and scenes on the sea; some of exceeding wildness, as in "Alastor;" some, as in the "Witch of Atlas," bathed in a beauty so ethereal it would seem the artist, in some privileged hour of inspiration, had dipped his brush in the light of other worlds. The "Revolt of Islam," one of the most elaborate of his poems, he composed as he floated a half-year alone in his skiff on the Thames, reclining under alder and willow-fringed banks, or taking refuge at noonday in some of the little islands that had until then nestled unnoticed in the lap of the river. Frequently he would spend whole nights in his boat. This passion, however, proved fatal at last; for Shelley having set sail from Leghorn for Lerici on his way to welcome Leigh Hunt to Italy, accompanied only by a single friend and a sailor boy, was overtaken by a sudden squall which whipped the waters into fury, and the little skiff so preciously freighted soon fell an easy prey to the hungry sea.

In conversation he was remarked for his impetuosity. There was a sort of contagious eagerness, an animation, at times a wild rapture in his talk. Among congenial friends he knew no reserve. His inmost life lay bare before them. Indeed, had his soul been cased in clear crystal it could not have been less concealed. His brain seemed on fire, for his blue eyes would flash, his cheeks crimson, his whole body tremble with pent-up emotions struggling impatiently for outlet, although his thoughts at the time were flowing in headlong torrent from his tongue. I speak without exaggeration. It is said that man is a microcosm. If nature's volcanic eruptions, with their earthquakes and hot, steaming lava, ever found their human analogies, it was in some of these impassioned outbursts of Shelley. His readiness of speech was equalled only by its finish and fullness. He spoke with ease and precision on the most abstruse themes. His ordinary conversation had a poetic flavor about it, for nothing seemed to appear to him except in some singular and pleasing light, and his extremely mobile face glassed his thoughts as perfectly as does the lake the woods that border it, or the clouds and birds that float and fly above its surface. Had he written as he talked, he would never have lacked readers. To all this there were added a frankness, a fearlessness and a forgetfulness of self rarely met with in social life, and these are each important avenues of communication. Such large capacity for utterance no doubt greatly helped the combustion of his thought. Smothered flames die. To live they must be granted access to the oxygen of the outer air.

When in conversation, so lost was he to all surroundings, so under the sway of his enthusiasm, his tea, of which he was very fond and drank largely, would go dripping from his shaking hand down his bosom upon his knees, into his shoes, on the carpet, and thus cup would follow cup in almost endless succession. It is recorded of him that he would frequently hold his auditors spell-bound through the entire night. Those thus charmed by him would at daybreak start up in perfect wonderment at the unconscious passage of the hours; and what is mysterious about it is, there would be left in their memories, after the strange fascination was ended, little else than a vague sense of extreme delight, the whole scene having vanished like the fabric of a dream. There was at times something wild and unearthly in his talk, a startling abruptness in its commencement and ending; so much so that Mr. Maddocks tells us that he was impressed by him as by the coming and going of a spirit.

In his pursuits as a scholar his enthusiasm knew no bounds. He always seemed to have a book in his hand, whether at the table, on the street, in the fields, or in bed, drinking in its contents with an avidity and a quickness almost incredible. It is said of him that he could read from six to eight lines at a single glance. Although we cannot give credence to this report, yet it serves to show that he seemed to others to grasp thought as by intuition. Such was his facility as a linguist, he would read the Greek philosophers in the original for hours without the use of a lexicon, and with the French, Italian and Spanish languages he was equally conversant. Homer, one of his favorite authors, he read, re-read and read again, no one knows how many times, always keeping a copy within reach. Ariosto was also to him a fountain of perpetual pleasure. He indeed approached the works of all the master minds of antiquity with a most profound reverence; and however abstruse and subtile their reasonings, his mind never grew weary, so intense and so insatiable his desire to discover truth. From a very early age he evinced for the study of physics great aptitude and relish, and pursued it with unbounded ardor. It was not until he had entered Oxford, had suffered from an explosion, had taken arsenic by mistake, and well-nigh ruined his books, his furniture and his clothing with chemicals, that he threw aside retort and test-tube, and set at work with the same characteristic fervor to disentangle those endless gossamer threads of thought metaphysicians take such delight in spinning. While thus engaged he embraced among other theories the Platonic doctrine of pre-existence. The wild warmth with which he welcomed his new creed came out quaintly one day while he was passing along Magdalen Bridge. A woman met him with a baby in her arms. He at once dextrously snatched it from her, greatly alarming her by his abruptness. In high tenor and with eager looks he asked, "Will your baby tell us anything about pre-existence, madam." At first she made no reply, thinking him insane; but seeing that the queer man meant no harm, and Shelley repeating his question with the same vehemence, she said, "He can't speak." "Worse and worse," cried Shelley greatly disappointed; "but surely the babe can speak if he will, for he is only a few weeks old. He may fancy perhaps that he cannot, but it is only a silly whim. He cannot have forgotten entirely the use of speech in so short a time; the thing is absolutely impossible." After the answer of the mother that she had never heard him speak,

nor any one so young, Shelley patted the boy's cheek, praised his rosy health, and passed him back to his mother, remarking as he walked away, "How provokingly close these new-born babes are; but it is not the less certain, notwithstanding their cunning attempts to conceal the truth, that all knowledge is reminiscence. The doctrine is far more ancient than the times of Plato, and as old as the venerable allegory that the Muses are the daughters of Memory; not one of the nine was eversaid to be the child of Invention."

But we must go to some of those poems with which he has enriched our literature if we would see his enthusiasm at the flood—to that drama of "Hellas," to those Odes to Naples and to Liberty, to the songs of triumph which constitute the closing act in his "Prometheus Unbound;" for here there are rhapsodies, and choral melodies, and lyric bursts, such as could have come only from a soul in transport. A glory of transfiguration rests upon his thought. In such rapt moods his face must have shone as the face of an angel. In his "Hymn to Intellectual Beauty" he appears, strange as it may seem, in the role of a religious enthusiast. It is true that in his attempts to rid his conceptions concerning God of all anthropomorphisms he has fallen into vagueness, leaving us an ideal which, while whiter than Parian marble, is also, alas! more cold; yet his worship is no less devout than was Ignatius Loyola's. His heart burns with the same fierce fires of devotion. There is the same chivalric zeal, the same exhausting vigils, the same importunate prayer.

We have thus far found Shelley a highly imaginative, sensitive, positive, volatile creature, singularly unsuited to the circumstances in which he was placed. No wonder his enthusiasm soon became diseased. His mind was not of a judicial cast. There was not the first characteristic of a trimmer about him, even taking that word in its best sense, as given by Halifax. He was by nature a radical, an extremist. No fear restrained him, no constitutional conservatism, not even common-sense caution. He loved truth better than he loved life. He fairly famished for it. Indeed, driven by his intense hunger, he committed the grave error of overloading his faculties until their action became dyspeptic. Impressionable, sincere, simple-hearted as a child, he inconsiderately gave assent to theories that would not for an instant bear the test of dispassionate logic, simply because they were specious, ably argued, and apparently

tended to ameliorate society. As soon as accepted, his imagination threw upon them its strong calcium light, and they at once assumed a brilliancy and a coloring not their own.

Persecution stepped in only to enhance their value and confirm their truth. His enthusiasm ran wild. His pursuit was too eager, and he was too elated over what he chanced to find. His precipitancy blinded him. Hotspurs can never become successful discoverers in the domain of philosophy.

To this same disposition we can trace the cause of his restless wanderings from place to place, like his own Ahasuerus. Each locality was successively selected for his permanent home. There, as he used to phrase it, he was to live forever. But he was no sooner settled than a new plan, suggesting itself, carried everything before it, and he would again start on his travels. His departures and arrivals were always precipitate, usually from excess of enthusiasm. To this also we can trace the exceeding crudeness of his plans for social reform; his championship and abandonment of Irish liberty. His first marriage, which terminated so disastrously, resulted from the sudden adoption of the suggestions of his sympathy. It was no love affair. A pretty girl came to him with a most pitiful tale, and to help her out of trouble he gallantly, but with fatal thoughtlessness, helped himself, and her, too, more deeply in.

WM. W. KINSLEY.

(To be Concluded.)

RECENT ECONOMIC LITERATURE.

OUR age is one of economic fermentation; what the past recognized as true is growing more and more uncertain to us; the beliefs of the future have not yet authenticated themselves to mankind. Tongues that once were among the loudest and the most confident are ceasing; knowledge that seemed unquestionable is vanishing away. The adherents of recognized systems, losing sight of their logical coherence, are beginning to renounce or essentially to qualify the fundamental principles of those systems, while they yet seek to hold fast to the practical inferences and rules which were derived from those principles. Loyal defenders of economic orthodoxy are chiefly strong on the exceptions which they take to the

teachings of its founders. They repeat the old formulas and rehearse the old lessons; but they comfort their souls with their private fling at the creed by way of showing their mental freedom.

Thirty years ago one would have prophesied that William Rathbone Greg would live and die in the ranks of the orthodox. Himself a Manchester loom-lord, a shining light in the great Corn-law discussion, and a representative of the hard, clear, common-sense intellect of northern England, he seemed committed alike by interest, position, intellect and record, by all his powers and by all their limitations, to the Manchester gospel of final prosperity and salvation for England and the world through the removal of restrictions on commercial intercourse. But in his *Problems of Life* he threw a stone at the brittle edifice of English Political Economy, successfully assailing the Malthusian law of population, which is the foundation of the English theories of land tenure, of wages and of labor. And now in his *Rocks Ahead*¹ he takes up the role of Cassandra to warn the English people that the practical outcome of all their policies and their plannings bids fair to be national ruin and bankruptcy. The three "rocks ahead" are the political, the economic and the religious rock. The first two are very closely related to each other. The Reform Bill of 1867, by taking the power out of the hands of the class on whom it was conferred by the Whig Reform Bill of 1832, could not but very greatly interfere with the prospects and the ideals of the class which Mr. Greg especially represents. An England governed by the *bourgeoisie*, by middle class men and middle class ideas, was the very object aimed at in the first reform. And for the thirty-five years of its tenure of power, the middle class did great things for England, but not the very greatest. It reformed many branches of administration, simplified the laws and their administration, and put under restraint the selfishness of the more powerful classes, where it entrenched on the rights of others. It abolished privileges, and worked out a modified equality before the law. It reformed the higher and the middle class of educational institutions, called the municipalities to account for their trusts, and swept away a host of fungus-like abuses in all places and corners where ancient drones were living on more ancient endowments. But it left the vaster tasks entirely untried. It never awoke to a

¹ ROCKS AHEAD; or, the Warnings of Cassandra. By W. R. Greg. Pp. xli. 233. Crown 8vo. Boston, James R. Osgood & Co.

consciousness of the evils inflicted on England by the disproportion of her manufacturing to her agricultural industries; it never lifted a finger to secure to the English people their traditional customary rights to the land, or to distribute among the millions hungry for a bit of land the millions upon millions of cultivatable soil which lie untilled and uncared for. It made England more and more dependent with every year upon foreign harvests for the staff of life. It adopted a foreign policy in accordance with that dependence—a policy weak and contemptible in the extreme, a policy of bullying the weak and the feeble, of truckling to the strong. It left the unfranchised voters at home in their ignorance and their squalor, making no large and generous effort to secure a system of national education, until constrained to do so by the transfer of power to that class.

And so Mr. Greg takes up his parable of woe and desolation over the England that he and his friends have made and fashioned during their long tenure of power. With Burke he fears for England, not "the day of judgment," but "the day of no judgment," and he thinks that his country is fast drifting to that. We agree with English opinion in treating most of his alarms as needless; the old country has a moral vitality, which is greater than he seems to think. She bids fair for another millennium of national existence. But she will have a hard pull up the hill in getting free of the mischiefs of narrow-minded, hard-headed policy which Mr. Greg and the Whigs in general have advocated.

Mr. Greg, in his first chapter, labors to show what will be the effect of transferring political power from the wages-paying to the wages-receiving class, and of course he makes much of the frightful example of the United States. The city of New York, itself under the control of the worst class of naturalized, but not Americanized, foreigners, is taken as a sample of American character and the effect of democratic institutions; and the sins of the civil service system as a specimen of our way of government. In explanation and confirmation of what he says of the latter, he reprints as his own the remarkable paper on "Three Men and Three Eras," which appeared in *The National Review* at the beginning of the war. We well remember the effect which that paper had on us at the time—an effect exactly opposite to that which Mr. Greg would now wish it to convey. We were just becoming alive to the abuses of the American

system of government, and were inclined to despair of it because regarding these as inherent in it. But Mr. Greg (as we thought) shows that these grow out of remediable defects of our political method—defects which had no existence in the first era, and are quite capable of removal still.

The second chapter contains some interesting reading for American economists. He foretells "the industrial exhaustion of Great Britain" as not far distant, the chief causes being the exhaustion of her coal, the deterioration of her labor, and the rapid advance of her competitors in industrial development. He candidly points out the dependence of England's ascendancy upon the exclusive command of cheap capital, and admits that the progress of other countries must be fatal to the sort of prosperity which she has hitherto enjoyed. This last concession is a damaging comment upon the sentimental cosmopolitanism of some Free Traders, as most finely expressed by Gladstone and Tennyson in their famous utterances on the subject of the brotherhood of free trade. Mr. Greg is right, but they ought to be. A natural and normal prosperity should find its benefit in every other nation's benefit; but England's prosperity suffers from whatever progress in the arts of industry is effected elsewhere. A touch of the old Free Trader we find (on page 93) in the assertion, that England's exports to other countries have gone on increasing because, "as in the United States, a fallacious commercial policy is fettering their hands;" while in the very same sentence he gives as another reason: "because in many quarters the application of capital to the development of native resources, is in its infancy or its struggling youth." If Mr. Greg's view of the immense advantages possessed by accumulated capital and matured industry is correct, then our commercial policy is anything but "fallacious," and is the true reason of our vastly increased production, of our diminished importation of foreign products, and of our rapid advance in competition with England for the command of our own market, of markets foreign to both, and even of the English market. Under no other policy would Mr. Greg have had to record that, "in nearly every branch of manufacture and machine-making, the most successful and serviceable inventions for many years have been of American origin," for which statement he alleges Mr. Brassey as authority; while he quotes Mr. Lothian Bell as saying that "in the matter of skill, every one who has had the opportunity of inspecting

the American iron works, concurs that their development is quite in keeping with the advantages which Nature has conferred on that highly favored country."

Unless Mr. Greg also is mistaken, they are not wrong who foretell that the transfer of political power in England will result, sooner or later, in the abandonment of that Free Trade policy which the middle classes regard as the perfection of economic wisdom, and in the adoption of the "fallacious commercial policy" of the United States.

The style in which Mr. Greg's book has been reproduced for American readers is not what we would have expected from the house whose imprint it bears.

In his *Letters to the London Times*,² Mr. Carey draws much the same picture of the mischievous results of England's economic policy, but especially in regard to her contact with less civilized countries. *Fas est ab hoste doceri*; an intelligent and severe critic may render a nation the very greatest services. And no nation is so much in need of such services as England. The bumpiousness of the English character is a great obstacle to the Englishman seeing things as they are. He boasts of his love of fair play, and not without reason. John does love fair play with all his heart. But no country has such difficulty in seeing anything to be fair, if it be against her own interests, or unfair if it favor them. This, as de Tocqueville pointed out, is the real reason of many shameless acts, which, if done by any other country, must be pronounced utterly Machiavellian in motive. It is a certain moral obtuseness which prevents the true Englishman from seeing the shamelessness of his country's opium war with China, her oppression of Japan, her impoverishment of India and Ireland, and the thousand and one iniquities she has perpetrated in the extension of her commerce. The more one knows of English character, the less of indignation he feels at the moral quality of these acts, and also the less of hopefulness as to their undoing. Still it is the part of real but severe friends to speak the truth about them, to bring once more the rejected Sibylline books and offer them to those who need but undervalue the lessons they contain. Mr. Carey's pamphlet contains a pretty long

² COMMERCE, CHRISTIANITY AND CIVILIZATION, *versus* British Free Trade. *Letters to the London Times*; by H. C. Carey. Pp. 36. Philadelphia: 1876.

list of the things that Englishmen do not like to read, but would be the better for taking to heart.

Any one who cares to follow the course of economic history on the continent of Europe, will do well to subscribe for the *Merkur* published at Frankfort on Mayn, by Dr. F. Stoepel. It is a weekly paper, of one sheet in quarto, and costs but three marks (or shillings) a quarter. Dr. Stoepel is the translator of the abridged edition of Mr. Carey's *Social Science*. Some of his excellent articles in the *Merkur* he has also printed *en brochure*. Two of these are *The Crisis in Germany*, and *Free Trade and Protection*.³ They are forcible and readable productions, the work of a man who has had his eyes open for facts, and who has in himself the intelligence needed for their appreciation. They are also of interest as part of a polemic literature, which represents a notable struggle within Germany itself. While that great empire has been growing rich and powerful under a truly Protective policy, the chairs of Political Economy in her universities have been for the most part filled by disciples of the English school; and consequently there has arisen a generation of *doctrinaires* who are full of devotion to its economic chimeras. The theory of the thinkers must, in the long run, mould the practice of the active workers; and the present administration are taking steps to throw Germany open to the world's competitions. The class which is in the majority are the land-owners and the *bauers*, who are so short-sighted as to think that dependence on foreign markets will put money into their pockets. In the really progressive districts of the country, such as Westphalia, Saxony, Berlin, and parts of Silesia, there is a warm and decided opposition to this abandonment of the policy which found Germany the poorest country in Europe, and has already made her one of the wealthiest. But in the regions where *junkers* and *bauers* have the majority, the Free Trade theories command a general support, and the politicians have purchased the political support of England by a commercial treaty which surrenders all German interests. The most lively opposition has been excited in the Rhine valley. The Free Traders counted on the support of even the manufacturing class, and held out various inducements to them in the shape of the free importation

³ Die Handelskrisis in Deutschland; 61 Seiten. 1875.

Freihandel und Schutzzoll, mit besonderer Rücksicht auf Deutschland; 134 Seiten. 1876.

of raw materials. For a time the whole issue seemed to be staked by both parties upon their suffrages; and when the result was decidedly in favor of Protection, the English papers were inclined to give up the fight. But the stolidity of a Prussian bureaucracy does not yield to popular opinion, and the administration, falling back on the support of the *junkers*, renews its announcement of its intentions. Dr. Stoepel has done good service in this warfare. He is recognized as a man fully competent to speak to and for the people of the Rhine valley, the Yankees of Germany, the most practically intelligent and enterprising of its various populations.

Prof. Bonamy Price's work on *Currency and Banking*⁴ recalls to us, by the lack of consistency and harmony in its contents, the disappointment felt by many of his friends at the character of his lectures in America. His *Principles of Currency* (1869) was a most vigorous protest against the monetary notions of the old English school, and it was plainly expected that their author would approach the financial questions of our own country from a higher plane, and with less of traditional prepossession than any of our orthodox economists had shown. It was also expected that a man who had such a keen eye for the economic phenomena of his own country, and had had such success in shattering the *idola* of the economists there, would learn something and teach us something about American finance that was not to be gotten out of books. But Prof. Price's feet were not well planted in American soil until he began his mission of enlightenment in a style which showed that he had quite made up his mind on all American subjects, and had come hither not to learn, but to teach. And the substance of his teaching was anything but what his books had led us to expect. What he had written was evidently to his mind strong meat for strong men, and the strong stomachs for its digestion were not to be found on this side of the Atlantic. So he dealt out to us abundant milk for babes—endless harping on the platitudes and truisms of the orthodox economy, and no small admixture of hardy assumptions and false positions. In his last book he gives us the two elements between the same covers. Up to page 166 the promise of his preface is very fairly kept; his views are again stated much as in his previous work.

⁴ CURRENCY AND BANKING. By Bonamy Price, Professor of Political Economy in the University of Oxford. Pp. 176. 12mo. New York: D. Appleton & Co.

But on that page he begins "a few words on the great problem as well as the great duty which lie on the people of the United States," and from that on "milk for babes" is his staple. By page 174 the milk becomes very sour and unwholesome milk—a quotation from one of Prof. A. L. Perry's speeches on the currency question, whose omission would add very greatly to the value of the volume.

To be more particular, Mr. Price is the English champion of the truth that no people can have too much of a really convertible currency. Now the one great question at issue between the hard money men and their opponents in America is this—do gold and silver furnish the only possible *converse* for a paper currency, or is there something else which is an equally good *converse*? Our country has, and for a long time will have, a large national debt. Yet our credit is so good that our bonds stand at a considerable premium in the market. We have not, and are not likely to have at any early date, the gold needed for a resumption of specie payments. We can only force a violent and excessive contraction of the monetary circulation by withdrawing the greenbacks and making national bank notes redeemable in gold, when gold is not forthcoming. Do or do not government bonds, paying interest high enough to be at par in gold, furnish the basis for the resumption of convertibility, or must we endure the curse of an inconvertible currency until somebody sends us gold? But any one might read Professor Price's book and his lectures from beginning to end, without finding the least evidence of his appreciation of the views of those who dissent from the hard money platform,

The last work of the late Prof. Cairnes was to revise and republish his first,—that on the *Character and Logical Method of Political Economy*.⁵ In spite of our very high regard for the author of *The Slave Power*, we cannot help feeling that his purely economical works are singularly barren. There is, as a young English professor once said to us, nothing to be learned from them; and John Stuart Mill showed his great judgment and fairness in his dissent from the current opinion which gives him rank above Cliffe Leslie.

The best thing, to our thinking, in the present book, is his clear perception of the fact which Mr. Carey has elaborated in his *Unity*

⁵THE CHARACTER AND LOGICAL METHOD OF POLITICAL ECONOMY. By J. E. Cairnes, LL.D., Emeritus Professor of Political Economy in University College, London. Pp. 235. 8vo. New York: Harper & Bros.

of Law, viz. that "the laws and phenomena of wealth, which it belongs to this science to explain, depend equally on physical and mental laws."

The fifth volume of Mr. Mill's *Dissertations and Discussions*⁶ is of decided interest to economists. It contains especially his great papers and speeches on the land question, in which the truth he had slowly learnt from Thornton and the falsehood he had early imbibed from Ricardo are alike carried to their logical consequences. Many of these papers are "epoch-making" in the history of Political Economy, especially the review of Thornton's *Labor and its Claims*, in which the figment of a wage-fund was slain, and put beyond all power of Prof. Cairnes to resuscitate it. The first paper on "Endowments" contains the remarkable words which show how far Mill had veered from the orthodox political economy of the Ricardo, Cobden and McCulloch school: "There are many things which free trade does passably. There are none which it does absolutely well; for competition is as rife in the career of fraudulent pretence as in that of real excellence. Free trade is not upheld, by any one who knows human life, from any very lofty estimate of its worth, but because the evils of exclusive privilege are still greater, and what is worse, more incorrigible." Two of these papers are on metaphysical topics—reviews of Taine's *De l'Intelligence* and of Grote's *Aristotle*. A majority are economical, and in the series of "Papers on Land Tenure" the connection between his Ricardoism and his half-way communism is very clearly shown. Ricardo's position that rent is payment for the use of the natural and inherent powers of the soil, and not for utilities created by labor, of necessity involves a distinction between property in land and all other forms of property, to the disadvantage of the former. For a long time this inference was not drawn by the English economists, and their science was regarded as a great champion of the rights of property against socialism or communism. But in our own times the position that the land-owner is nothing but a public official, who must account to the state for the trust committed to him, is coming to be regarded almost as a principle of political economy. No one has stated this more clearly and forcibly than Mr. Mill; and the alarm of the landlords is not in the least diminished by his assurance that he

⁶ DISSERTATIONS AND DISCUSSIONS; Political, Philosophical and Historical, by John Stuart Mill. Vol. V. Pp. 294. 8vo. New York: Henry Holt & Co.

and his friends are not prepared to advocate anything very sweeping in the way of change. For everybody must see that the proclamation of such principles by men as eminent as Bright and Mill, will lead to their general currency among the intelligent classes of wages-receivers, and that inferences not sanctioned by the "Land Tenure Reform Association" will be eagerly drawn. We see no remedy unless through the currency of the truth which Mr. Mill has again rejected and denied, that land like any other property owes its value to labor, and that the natural and inherent powers of the soil (as may be seen best in the regions like the Amazon valley, where these powers are greatest) have no value in the absence of other things.

This last volume of Mr. Mill's Dissertations, while it contains nothing of such exceeding interest as his essays on Coleridge and Bentham, is altogether worthy of its author. It reflects the qualities of a mind clear, strong and great—great in spite of great limitations.

One of Mr. Mill's papers is a review of Maine's *Village Communities*⁷ which Messrs. Henry Holt & Co. have presented to the American public in a very handsome form. With the principal results reached in those lectures, the readers of this magazine are already acquainted, as they have been freely used and largely quoted in the article on "The Teutonic Mark," and some others. They are of immense value to every one who wishes to know as closely as may be the early history of institutions; and the clearness, force and beauty of the author's style render their perusal as fascinating as possible. To the economist, their great importance is in their refutation of the theory of the origin of rent in competition for land. Mr. Mill unhappily confined his review of them to other points of interest, and only expressed his regret that space and time failed him to say what could be said in defence of the economists; nor do we know of any others who have found time to say it.

But these lectures fill but half of the handsome volume before us. The rest is occupied with his Rede Lecture on "The Effects of Observation of India on Modern European Thought;" with three "Addresses to the University of Calcutta," and with two essays on "The Theory of Evidence," and on "Roman Law and Legal Edu-

⁷ VILLAGE COMMUNITIES IN THE EAST AND WEST, Six Lectures delivered at Oxford; to which are added other Lectures, Addresses and Essays. Pp. xii. 413, Cr. 8vo. New York: Henry Holt & Co.

cation." All of these will be seen to be fit themes for Sir Henry Maine, and the readers of his *Ancient Law* will come to all of these essays with greedy expectation. They will find sometimes the same things as he has written in other places, but with such difference of perspective and of light and shade, as renders every restatement valuable. The Calcutta Addresses are the freshest in contents, where all are fresh in manner and interest. They discuss the problem of education from an Anglo-Indian standpoint, and help us to understand the complex nature of the problem which England has to solve in the work of civilizing her great Asiatic Empire. Much of what he says as to the theory of education seems to us exceedingly doubtful, especially on the subject of cramming.

English political economy in its American branch has hitherto been but a barren Hannah, unfruitful of any fresh or original thought. While the opposite or nationalist school can point with pride to the two Careys, List, Rae and Phillips, only Condy Raguet stands out from the herd of writers and translators of manuals and text books on the orthodox side. Not a single doctrine or modification of a doctrine is traceable to the American Free Traders, although they have been contemporary with Senior, Mill, Tooke, Leslie, Thornton, Macleod, and all the host of audacious innovators upon economic tradition. One might almost claim that as representatives of life, movement and vitality, the nationalists of America better correspond to the cosmopolitans abroad.

Gen. Francis A. Walker seems likely to take away this reproach. Like Mr. Carey, he has enjoyed the advantage of being the son and no doubt the favorite pupil of an economist of at least the second class. He has had still more exceptional advantages as head of the Bureau of Statistics and Superintendent of the Census of 1870, and he has already given intimations, in the valuable prefaces to the Census Report, of lessons learnt and inferences drawn from the statistics there collected. His recently published treatise on *The Wages Question*⁸ deserves to rank between those of Edward Young and W. T. Thornton as one of the best discussions of the most burning question in modern political economy. His work is

⁸ THE WAGES QUESTION, A TREATISE ON WAGES AND THE WAGES CLASS. By Francis A. Walker, M. A., Ph. D., Professor of Political Economy and History in Sheffield Scientific School of Yale College. Pp. iv. 428, Cr. 8vo. New York: Henry Holt & Company.

more theoretical than that of Mr. Young, more full of facts than that of Mr. Thornton. It surpasses both in its complete mastery of the literature of the subject, for Gen. Walker writes with a thorough knowledge of all the various theories and opinions of his predecessors in this field. As an economist he belongs to that semi-orthodox party, who hold with Mr. Mill that "let alone" is a good rule in matters of production, but not completely valid in regard to distribution. This distinction seems to have been his motive for dividing his work into two sections, "Production and Population" and "Distribution." As is already known, Gen. Walker rejects the Wage Fund Theory, and is not scared by the Malthusian nightmare. But he holds to the law of diminished production of labor when applied to agriculture, while admitting as qualifications all the facts urged against it. For instance, he admits Mr. Carey's principle that the best lands are not the first occupied, and yet proceeds to argue that even on that hypothesis the limit of agricultural productiveness is soon reached. He does not see his way to hold with Mr. Carey that in a normal state of society there will be a reduction in the rate of human increase—without any act of conscious reflection—and this diminution will be reached long before the limit at which labor ceases to render an increased return in agriculture.

Almost at the opening of his work he does a very great injustice to the Protectionist or Nationalist school of Economists, in regard to the principle that labor is better paid in some countries, simply because it is better or more productive than in others. That principle is nowhere more earnestly argued out than by Protectionists. Mr. Carey, Mr. Peshine Smith, and the present writer, have urged its truth again and again, and especially in answer to those of Mr. Walker's own friends who hold that our economic salvation as a people must come with "a decrease in the cost of production," meaning lower wages. And when it is stated conversely by the political representatives of the Protectionist theory, they may fairly claim that General Walker has fully justified them in showing that high wages are the cause of high production, as well as its effect. Nor do either the literary or the political champions of Protection urge this argument apart from others of which it is an important corollary.

General Walker's "conclusions for use and for doctrine" as to the relation of capital to labor, seem to us truly excellent. He thinks that society cannot afford to get rid of the employer class by

the general establishment of the coöperative system; but he justly reckons any plan that will give the laborer an interest in his work as a great gain to all. Trades Unions and their strikes he happily compares to the insurrections and disorders with which the great struggle for political freedom was inaugurated; and he is sure of a final and happy solution of all the questions which now oppress us by their urgency.

What we most like in General Walker's book is its noble, generous and humane spirit. He has no sentimentalism in his composition; he knows that business is business. But he is sure that men are men, that affections and imaginations are in a true sense economic forces, and that nothing is gained by assuming that either workmen or employers are "covetous machines, actuated solely by avarice and the desire of progress." We hope to give the work a more detailed examination at an early date.

ROBT. ELLIS THOMPSON.

NEW BOOKS.

HOMES AND HOW TO MAKE THEM. By E. C. Gardner. Price \$2.00. Boston: James R. Osgood & Co., 1875.

ILLUSTRATED HOMES. By E. C. Gardner. Price \$2.00. Boston: James R. Osgood & Co., 1875.

Mr. Gardner has given us two charming little books, not at all technical, enunciating principles of sound and good building, telling us why it is sound and true, and exhorting us to hate whatever is false and useless.

The first book is made up of a number of letters between an architect and his client—with an occasional one from his client's wife or her spinster sister—about the building of a home. One or two other letter writers complete the *dramatis personæ*.

The letters are admirably written, each one having its individuality on its face; and even if they were not headed, we think we could tell from whom they came. As seems natural, the architect writes the best letters, and his arguments appear unanswerable. He suggests to his client first a house of stone; then he praises the beauties of brickwork so highly that his client decides upon brick as the material for his house; and lastly the advantages of wood are so forcibly shown by the architect that the unfortunate client again changes his mind. In the end, although the house is actually built, we are uncertain what is the material. This vacillation gives the

architect the opportunity to tell us the advantages of every sort of building, and to give us an insight into the qualities of different materials. Different portions of the house are also thoroughly treated. We agree so entirely with his remarks on the exterior of chimneys that we cannot abstain from quoting somewhat. "A chimney is most useful and honorable, and you are on no account to be ashamed of it. Don't try to crowd it into some out-of-the-way corner, or lean it off to one side to clear a cupola—better burn up the cupola—or perch it daintily on a slender ridge like a brick marten-box; let it go up strong, straight, and solid, asserting its right to be wherever it is needed, comely and dignified, and finished with an honest stone cap. Ruins are charming in the right place, but a tattered chimney-top on an otherwise well-preserved house is vastly more shabby than picturesque." His remarks on the shameful misuse of wood are particularly applicable at the present, when, by a visit to our Centennial Exhibition ground, we can see numerous buildings where the wood has been so twisted and tortured that we feel inclined to weep when we look upon it. Fortunately there are exceptions to this, and we can there also see wood properly treated. We concur strongly with him in his advocacy of roofs of sufficient rise to allow the use of slate or shingles. His remarks are very pleasant on the roomy garret of the old high-roofed houses. He says, "These have for me a wonderful fascination. Whether the rain upon the shingles, the mingled fragrance of seeds and drying herbs, the surprising bigness of the chimney, the mysteries hidden in the worm-eaten chests, the almost saintly charm of the long-unused spinning-wheels, crumbling mementos of the patient industry of former generations, or the shine of the stars through the chinks in the shrunken boards, the old garret and all its associations are among the 'long, long thoughts.' I sometimes doubt whether the modern conveniences we are so fond of proclaiming are really an equivalent to the rising generation for this happiest of play-rooms, this storehouse of heir-looms, this silent but potent tie, that binds us to the life, the labor, and the love of the past." The chapter on ventilation is excellent, and the volume throughout contains valuable information and many pleasantly written passages. "Illustrated homes, describing real houses and real people," is, as its title would suggest, a series of plans, etc., of houses for different characters of clients, and tells us what the clients' wants were, and how the architect arranged for them. The different class of clients are well described and very life-like: the plans seem well arranged, and some of the exterior views striking. Without going into a further discussion of the merits of the book it is sufficient to say that it makes a good companion to "Homes and How to Make Them."

THE ANCIENT RÉGIME. By H. A. Taine. Translated by John Durand. New York: Henry Holt & Co. 1876. Pp. xvi. 421.

There are three Frenchmen to whom our modern Teutonic school, so fond of drawing comparisons disadvantageous to the Latin races, may be pointed as combining a German solidity and thoroughness with the fine insight and exquisite style of their own country: MM. Sainte Beuve, Littré and Taine. The twenty-odd volumes of the *Causeries du Lundi* and the colossal Dictionary which attest the genius and the industry of the two former may stand side by side with the goodly list opposite the title-page of the present volume. Art, Literature, Philosophy, National History have been in turn the theme of M. Taine; and the brilliancy and multitude of his ideas have, in each case, been accompanied with an abundance of illustration and of demonstration, by happily chosen instances, which leaves upon the reader an enduring impression. The History of English Literature, with some faults both of exaggeration and of omission, has already taken rank as a classic; a magnificent achievement, this, for an Englishman, and doubly wonderful in a foreigner. In the vitality of M. Taine's style, his power of realizing the life of an epoch, and of making his readers realize it, the defects of the book seem trivial; though a hostile critic would find it easy, here and there, to catch the author tripping.

But here he is on his own ground, a Frenchman writing of the origins of contemporary France. He approaches his subject, not as a partisan, but as a philosopher. He is neither Legitimist, Orleanist, Bonapartist, nor Republican; or rather, he will be one of these only as the result of an exhaustive inquiry. "I could not understand how, in politics, one could make up his mind according to his predilections. Peremptory advisers constructed a constitution as if it were a house, according to the most attractive, the newest and the simplest plan, holding up for consideration the mansion of a marquis, the domicile of a bourgeois, a tenement for workmen, barracks for soldiers, the communist philanthropy, and even a camp for savages. * * * It appears to me that a house is not built for the architect, nor for itself, but for the owner and occupant. * * * We ought to form some conception of a nation before formulating its constitution. I promised myself that if I should some day undertake to form a political opinion, it would be only after having studied France." * * * * * * * * *

"Old Régime, Revolution, New Régime; I am going to try to describe these three conditions with exactness. I presume to declare that I have no other object in view; I have confronted my subject as I would the metamorphosis of an insect."

Besides the ordinary sources of information, M. Taine had access to "a mass of manuscript documents, the correspondence of a large number of intendants, directors of excise, farmers-general, magis-

trates, employés, and private persons of every kind and of every degree during the last thirty years of the old régime; the reports and memorials of the various departments of the royal household, the *procès-verbaux* and *cahiers* of the States-general," and such a quantity of interesting material; "a number of documents so unknown and so instructive, that indeed the History of the Revolution seems still unpublished."

Any reader of M. Taine will recognize from these sentences the appearance of a book of the greatest importance; a book which will perhaps be the author's greatest literary monument. We shall not attempt to estimate this detached section of a great work; but we may say that no other account of the habits and condition of the French people under the old Régime has left us with so full and so striking a conception of the time. We are often told that the life-blood of the nation was drained to sustain an elegant and luxurious Court; that the King was the source of executive action throughout the realm, and the nobles had retained no attribute of their rank except its odious privileges; and that taxation pressed most heavily and inequitably upon the poorest classes: but only after reading page after page of M. Taine's significant details, do we realize the tremendous meaning of these facts, and understand the excesses of the Revolution.

We are sorry that we cannot commend the translation, which bears evident marks of haste, carelessness and even of ignorance of the French idiom. We quote a few sentences at random: "They take pride in their negligence, regarding it, as they say, living nobly;" p. 53. "The black brood of judicial leeches suck so much the more eagerly, because the more numerous, a still more meagre prey, having paid for the privilege of sucking it;" p. 55. "The great families never stir away from Versailles, and day and night they lay in ambush;" p. 102. "One has a hundred friends, and out of these hundred friends two or three may have some chagrin every day; but one could not award them sympathy for any length of time, as, in that event, one would be wanting in consideration for the remaining eighty-seven;" p. 159. These are but average instances of the liberties which Mr. Durand takes with sense and grammar. We hope the book will be carefully revised before the appearance of a new edition.

THE MYTHS OF THE NEW WORLD, a Treatise on the Symbolism and Mythology of the Red Race of America. By Daniel G. Brinton, A. M., M. D., Member of the American Philosophical Society, etc., etc. Second edition, revised, large 12mo. \$2.50. New York: Henry Holt & Co. 1876.

No work on the American aborigines by an American student has appeared since the times of Du Ponceau and Gallatin which for

thorough scholarship can compete with this book by Dr. Brinton; and the fact that a second edition has been called for shows that it has secured among general readers, to whom it is addressed, the appreciation which it merits. The subject which Dr. Brinton has chosen can hardly be said to have been neglected, since almost every writer who has treated of the American Indians has presented his views respecting their religious beliefs, and particularly, their mythic tales and legendary history; yet here, as in the Old World, mythology and tradition have, until within a few years, been subjects with which philosophy and historical criticism were wholly incompetent to deal. A comparative study of the related groups of Aryan myths, only rendered possible by the discoveries of comparative philology and by access to the early literature of India and Persia, has placed the whole matter of mythology in a new light. Like language, with which it is in many ways closely connected, mythology is found to be a thing of natural and gradual growth, springing from man's mental needs and capacities, governed by its laws, and uncontrolled in the general course of its development by human design. Dealing in the beginning simply with the striking and mysterious occurrences of the outer world, and embodying the science of primitive man, to whom the only conceivable force acting in nature was the free will of conscious agents like himself, it is in the course of time refined upon and systematized and supplemented by philosophical speculation, until finally it may become divested of nearly every trace of its original character. The nature-myth may be made to embody an ethical truth, and so pass current as an allegory; or an ancient deity may become degraded to a demigod, and finally to a merely human warrior or legislator, and the story passes into legendary history; or the myth may become a mere wonder-tale, repeated for the delight of children in civilized communities, and in uncivilized for that of child-like men.

The readiness with which mythology passes into legendary history is one of its most mischievous features, since it has polluted the sources of all history, and has stocked the earliest annals of every nation with pseudo-traditions, which have long been a stumbling-block to historians. One of the most important results of Dr. Brinton's studies has been the clearing away of much of this debris from among the American traditions, by doing which he has overturned a host of historical speculations which have been based upon them. He has shown, conclusively, we think, that the sources and the history of mythology on this continent have been the same as among the more cultured races of the Old World. Among the Aztecs, Peruvians, and Algonkins are found nature-myths—stories of the winds, of the thunderstorm, and of the ceaseless conflict between light and darkness—surprisingly similar to those told by the Greeks, Hindus and Persians; and here as there the personified agent has in many cases become so completely humanized as readily

to pass unsuspected as a veritable historical personage. Such personages are Quetzalcoatl, the famous high-priest of Cholula; Votan, the traditionary founder of Palenque; and the Algonkin Michabo (the Hiawatha of Longfellow's poem), traditions respecting whom have been thought to point to early visits of Europeans to this country; but who, it can hardly be questioned in the light of comparative mythology, are as purely mythic as the king Odin of the later Norse legends, or as King Minos of Crete.

The symbolism of the Red Race, again, is often identical with that of the Old World races, showing how obvious and natural are the comparisons or the figures of speech out of which it arose. Thus the winds and the clouds figure in its mythology as birds, and in the Thunder Bird of the Dakotas and Chippeweyans we have the Ravens of Odin as well as the immense Rokh of Persian story; Unktahe, the Dakota god of the waters, under the form of a fish, reminds us of the Phoenician Dagon and the Babylonian Oannes; the lightning appears under the same serpent symbol with which we are familiar in the dragons of classic legends; and finally there is the symbol of the cross, that so mystified the Spanish discoverers of Yucatan, which Dr. Brinton has very plausibly explained to represent the four cardinal points of the heavens.

We purposely refrain in this place from speaking of Dr. Brinton's work except in general terms, since criticism within the limits of a simple notice could not fail to be unjust. That his explanation of the myths is in the main sound, is, we believe, the verdict of all who are competent to pass judgment. That he should be successful at every point was not to be expected. But he has at least cleared the ground and prepared the way in this field, not merely, we trust, for other students, but for further investigations by himself.

THE RELIGIOUS SENTIMENT—ITS SOURCE AND AIM: A Contribution to the Science and Philosophy of Religion. By Daniel G. Brinton, A. M., M. D., Member of the American Philosophical Society, etc.; author of "The Myths of the New World," etc. Large 12mo, 331 pp., \$2.50. New York: Henry Holt & Co. 1876.

This book, issued simultaneously with the second edition of "The Myths of the New World," is a sort of philosophical summary of the results of the author's studies among myths and religious creeds. The earlier work is devoted to an inquiry into the origin and mode of growth of the symbols and concrete notions which form the envelope of religion; the present volume deals with the more difficult problem of the source and warrant of the religious sentiment itself. The main questions which the author sets before him are these: "What led men to imagine gods at all? What still prompts enlightened nations to worship? Is prayer of any avail, or of none? Is faith the last ground of adoration, or is reason? Is religion a

transient phase of development, or is it the chief end of man? What is its warrant of continuance? If it overlive this day of crumbling theologies, whence will come its reprieve?" Satisfactory answers to these inquiries can be given, Dr. Brinton thinks, "only by an inductive study of religions, supported by a sound psychology, and conducted in a spirit which acknowledges as possibly rightful the reverence which every system claims." The prevailing psychology of to-day, represented by such men as Hamilton, Hegel and Spencer, is disposed to regard the sphere of religion as outside the domain of reason; its object as unknowable, and only to be apprehended through faith. Dr. Brinton, however, is more confident in the powers of the human mind. He believes that through a study of the Laws of Mind—the Formal Laws of Thought, as distinct from Applied Logic—a solution is possible; and, since this is his fundamental position, he has devoted a considerable space to the strengthening and elucidating of it. Another point wherein he departs from the prevailing philosophy, is in regarding the religious sentiment as something more than a mere affair of the emotions. "If," he says, "we dispassionately analyze any religions whatever, paying less attention to what its professed teachers say it is, than to what the mass of its votaries believe it to be, we shall see that every form of adoration unconsciously assumes certain premises in reason, which give impulse and character to its emotional and active manifestations."

Other matters discussed in the book are "The Prayer and its Answer," "The Myth and Mythical Cycles," "The Cult—its Symbols and Rites," "The Momenta of Religious Thought." Dr. Brinton writes with the clear and forcible style of one who has studied his subject thoroughly, and whose thoughts are well defined in his own mind. Yet, as his subject at its simplest calls for the most persistent exercise of thought, his book is not one which indolent thinkers will care to read.

THE journal of the Royal Museum of Instruction and Education, published in Rome, in its issue of April 15, 1875, says, "The PENN MONTHLY, of Philadelphia, contains articles on literature, science, art and politics, worth the studious attention of all persons of culture. Education, although not mentioned on the title page, is largely discussed in all that bears upon its advantages in America—under various headings—Reforms and Reformers in Education, National Education, Industrial Education, School Hygiene and that of the Eyes of Scholars—all have been fully and ably discussed in its pages. Lately it gave a notice of this journal, and urged editors and authors not to neglect any opportunity of making known in Europe the condition of American schools, and of calling attention to all publications on the subject. We trust that this call will be heard and

heeded." The same number contains the official publication of recent Italian legislation on the subject of technical schools, an account of the wall maps for schools, of apparatus for showing the movements of the celestial bodies, and of tables illustrating natural history. A very able abstract is also given of the work of the commission on the reform of normal schools. Then follows an article on kindergartens, and after this full statistics from official sources, of the number of pupils and teachers, and of the moneys expended in the public schools of Italy. There are bibliographical notices of recent publications relating to school work of various kinds, showing great activity among Italian writers in all matters that bear upon pedagogy. A long list of the additions to the Library of the Italian "Teachers' Institute," shows that its work is appreciated by very intelligent and generous people of all countries.

DAVAULT'S MILLS. By Charles Henry Jones. Philadelphia: J. B. Lippincott & Co. 1876.

Mr. Jones has written a society novel, by which we mean one not dedicated to a great hero or heroine, nor to marked and curious studies of character, but to the daily life of good men and good women, tattling gossips, purse-proud manufacturers, unscrupulous lawyers and club men, all of whom we are constantly summoned to meet by the square, heavy envelopes that come through the winter to those who have wedding-garments. But these familiar characters are all well drawn, and their conduct and motives portrayed by a close observer; and though there is a murder and a sudden death, the story contains no dreadful secrets, no great crosses, no lepers, nothing borrowed from the robing-room whose properties make either the truly grand or the ridiculously sensational. The novel is without a hero, and from the postscript, in lieu of a preface, we learn that the author had in mind to portray the very marked contrast between the lives of men starting from the same goal and running in the same race. He gives us on the one hand Archibald Davault, the owner of the mills, and Braxton Daw, his manager. Both rising from the lowest obscurity, the former into a millionaire, subsidizing respectability with terrapin, Rhine wine and charities; and the latter into the brave, upright, fearless manager, eager to rise with his class, yet who enriches his employer without profit to himself, and is shot down in his faithful service by a good-for-nothing striker. Then the second comparison—we regret that it savors so of the church militant—is between a severe, dried-up but conscientious old low-churchman, and a young, enthusiastic divine, a little addicted to candles, who compete together for the control and instruction of the poor around Davault's Mills; and we are shown a moral too universal to be as vivid as the other, that industry, enthusiasm and courage are as necessary in the conversion of souls as in any other work.

Then there are several very natural love affairs, which threaten disaster, because one side does not recognize the mysterious passion until the other side has stopped looking for it in despair. Perhaps the most interesting part of the book is that which recounts how the man who has money, but not worth, loses what he has. Laban Flade, an attorney of a very low order of morals and a high one of sharpness, discovered that Mr. Davault derived his title to the mills from the son of his late partner, upon whom the title to the mill property and his father's share of the business descended many years ago, and that he was not quite of age when he made the deed; so that Mr. Davault had not a legal title to the splendid improvements which he had since built up and developed. The rich man would hear of no overtures from the cunning attorney who was willing to keep the flaw a secret for a price, nor after his death from his ragged client, to whom he had himself imparted, in the execution of what he considered a bold and exquisite stroke of tact, the knowledge which would have died with Flade; but branded the whole matter as a conspiracy, and went boldly into court, where unfortunately the jury found a verdict for the plaintiff. Mr. Davault, prostrated by this unexpected reverse, would have been utterly ruined if the young clergyman had not induced the plaintiff, who was one of his parishioners, to agree that he would credit Mr. Davault with the original purchase money and the amount of the encumbrances on the property paid off by him without interest, and confirm the titles given by Mr. Davault to such of his operatives as had settled on the mill property, and take the whole thing as it stood, without a word said about mesne profits. Now the composition of any business difference by a clergyman is *prima facie* bad, and if we did not know that the divine in this case had no less a counsel than the author, and that the question presented is by no means settled by precedents, we should have said that the law would have got for Mr. Davault quite as much as the gospel did, and no favor done.

Again and again throughout the story Mr. Jones has struck off to a nicety the ill-natured gossip about young people, who, it is supposed, are or ought to be interested in each other; the effrontery with which women break off conversation which threatens to be disagreeable;—and if any one would like to see what he knows about wedding-breakfasts, let him read page 372.

“Almost every man became a waiter, either for himself or for some lady under his charge, and the assault was made almost simultaneously upon almost every dish on the table; an artillery of wine-corks; a rattling of plates; the cry of the assailants—distinctly audible above all—for knives, and forks, and spoons, or other weapons of attack; coats well besmeared with cream, and wine, and sugar; the crowd thronging and jostling each other and the servants in the spirited struggle after booty; and the scorching glare of

the gas-light falling down over all, together made up a scene of the wildest disorder and confusion. And then there was a bearing about of dishes and wine-glasses to and fro, dripping and splashing, through the crowd; and a mopping and brushing with pocket-handkerchiefs, and a cheerfulness and good humor withal; and nothing remained of Mr. Davault's sumptuous and beautiful supper-table but a nasty, smeared ruin, with traces to be found of it here and there on the mantels and pedestals, and in the niches throughout the house, disfiguring the bronzes and statuary—a desecration, with the trophies of Bacchus, of the temple of art."

Of so excellent and simple a narrative of the life all of us understand and move in, we should willingly take leave without an unkind word, if a high sense of duty did not compel us to say that next to the expression "gentleman friend," the most intolerable in the world is "lady friend," to be found on p. 140, and to hope that in his next edition the author will cull out from what is everywhere marked by good taste and propriety, this social shibboleth.

THE PROTECTION OF MAJORITIES; or Considerations relating to Electoral Reform, with other papers. By Josiah Phillips Quincy. Boston: Roberts Brothers. 1876.

The paper which gives the title to this little volume, is a fanciful protest against the confessed evils of the existing system of caucus government. A journalist, a merchant, a senator and a minister take part in a colloquy, in which all are agreed that the existence of the little body of compact politicians who manage us and our votes, is a barrier to any real reform. The proposal is to give the honest-minded men, who are claimed to be largely the majority, an opportunity to be heard in the nomination of candidates, as well as in their election. The method by which this is to be done is by securing for nominations the recognition of law and the supervision of public officers. Various draughts of laws to reach this end have been submitted to party conventions and legislatures in several States, and a statute in Ohio points out a way in which the political parties can thus invoke and secure the solemn interposition of oaths duly administered and penalties prescribed for their violation. Of all these efforts Mr. Quincy is profoundly ignorant, and proposes that nominations be made by signed ballots, and that the state issue a journal to be called the Local Nominator, in which candidates shall be proposed and nominated, and their merits discussed in print instead of on the stump. The scheme is not very thorough-going or far-reaching; but it serves to enable the author through his several speakers, who have a wonderful uniformity of voice and sentiment, to urge the objections that are but too numerous and potent, against the existing abuses. Whether his remedy be effective or not, or his method of advertising it very apt and attractive, all the same we are

thankful to every man who gives time and thought to the solution of the problems which are or ought to be vexing the souls of all good men and true. The virtue of the state is being sapped and the honor and faith of the country are fast disappearing, and yet the mass of our people are honest and truthful; but instead of being properly represented in the government and duly influencing it, the business of the nation and of every state and municipal body is handed over to professional politicians who represent no constituency, and keep themselves in power and place only by making a business of local politics and outwitting the real voters, who really want honest representatives, and are unable to guess why they are never able to make their will law through the ballot-box. Mr. Quincy's plan, like his arguments in support of it, is not nearly thorough-going or far-reaching enough; and until he stirs himself to a livelier faith in his own scheme, he will hardly make his protest heard or heeded. The other papers discuss higher education, town libraries, the abuse of reading, and under the title of the Better Samaritan, that abuse of charity which makes ostentatious gifts instead of really wise and well-directed public benefactions. The author speaks with real earnestness and well considered purpose, so that his little volume is full of thoughtful and useful suggestions.

THE SCHUYLKILL. A Centennial Poem. By M. K. C. Philadelphia: John A. Haddock. [Porter and Coates.]

If the only requisite of a poet was a lively imagination, the author of this little book would certainly take a very high rank indeed, as can be readily shown by one or two extracts; thus, on page 7, we find:

“The passing barge and pilot boat
Gondolas gay of Venice float,

* * * * *

“The gouty bridge, moss-grown and gray
Becomes the ancient covered way
To feudal castle, grim and hoar,
Of which in *Marmion* I had read,
The print-works on the farther shore
For castle serving happy stead.”

We have seen gondolas in Venice, and castles in other parts of Europe; but it had never occurred to us to see a likeness between these and the craft one meets on the Schuylkill, or the rows of intensely ugly factories which in some places line its banks. We suppose the author's superior abilities in this respect might be expressed by the old saw, “All his geese are swans,” or, as he himself poetically phrases it—

“A flock of geese sail softly by,
Which, viewing with expanding eye,
Are quick transformed to graceful swans.”

We had, however, hoped to be able to commend the little volume as a good guide-book in rhyme, for the use of our visitors this summer; but found towards the end, several times repeated, the dates of 1580 to 1590, as the time of the settlement of Pennsylvania under William Penn; whereas, if we have read history aright, William's *grandfather* was at that time among the possibilities rather than the realities of life. So on the whole we are compelled to say it would have been better if the modesty expressed in the opening lines had been sufficiently strong to have kept the author altogether from “assuming the poet's daring role.”

BOOKS RECEIVED.

Poetry for Home and School. Selected and arranged by Anna C. Brackett and Ida M. Eliot. 16mo. Pp. 315. Price \$1.25. New York: G. P. Putnam's Sons. 1876.

On Fermentation. By P. Schützenberger, Director at the Chemical Laboratory at the Sorbonne. With twenty-eight illustrations. 12mo. cloth. Pp. 331. New York: D. Appleton & Co. 1876.

Wych Hazel. A novel. By Susan and Anna Warner. 16mo. Pp. 528. Price \$2.00. New York: G. P. Putnam's Sons. 1876.

History of the Civil War in America. By the Count of Paris. Translated with the approval of the author. By Louis F. Tasistro. Edited by Henry Coppee, LL.D. Vol. 2, Pp. 800, with maps. Philadelphia: Joseph H. Coates & Co. 1876.

Village Communities in the East and West, to which are added other Lectures, Addresses and Essays. By Sir Henry Sumner Maine, K. C. S. I., LL. D., F. R. S. 8 vo. cloth. Price \$3.50. Pp. 413. New York: Henry Holt & Co. 1876.

The Wages Question, a treatise on Wages and the Wages Class. By Francis A. Walker, M. A., Ph. D. New York: Henry Holt & Co. 1876.

The Historical Jesus of Nazareth. By M. Schlesinger, Ph. D. Pp. 98. Price \$1.00. New York: Charles P. Somerby. 1876.

The Hand of Ethelberta. A comedy in chapters. By Thomas Hardy. Leisure Hour Series. New York: Henry Holt & Co. 1876.

THE
PENN MONTHLY.

JULY, 1876.

THE MONTH.

THE dispatches from Constantinople read like a chapter out of that rare old chronicle, Knolles' *History of the Turks*. A Sultan deposed by his own Pashas—successors of the Janizaries, we may say; his successor taken out of a cellar and invested with the sword of Omar; the suspicious suicide of the ex-Sultan; the sudden assassination of the very authors of the revolution,—all this belongs rather to the fifteenth than to the nineteenth century, to the period of decay, when the best things of the Middle Ages had died out, and the worst had come to the surface. One might have expected that the nightmare of barbarism and misgovernment, which curses some of the fairest countries of Europe, would by this time have disclosed itself in its true colors to Christendom, and alienated from itself all sympathy and support. But these events seem to have given the Turks a new lease of south-eastern Europe. England's refusal to accede to the plan proposed by the Imperial Chancellors, on the old lying but diplomatic plea of giving time for reforms, was followed up by orders to her Mediterranean fleet to report in Turkish waters, and no hint was spared to let Russia know that she would not allow the sovereignty of Turkey to be interfered with. A fleet of English iron-clads is, after all is said, the most formidable thing afloat; and the three Emperors seem to have snatched at the revolution as an excuse for retiring from a position which might involve them in a collision. The diplomatic estimate of England is evi-

dently not the same as the newspaper estimate, and her awkward way of drifting into a war without meaning it is too well remembered.

In the collapse of the imperial triumvirate, Servia evidently holds the key of the position. With Bosnia and Herzegovina in revolt on her right, and Bulgaria on her left, she only needs to take up her march to Constantinople, in order to rally around her all the anti-Moslem energies of eastern Europe. Roumania is jealously inert, but then the Roumanians are about the poorest fighting material in that part of the world. The revolt which broke out in Bulgaria on the first of May, at a pre-concerted signal from a secret Committee of Insurrection which has been at work for years past, is of all the recent movements the most threatening to the Porte. It has spread rapidly over the whole province, and the fanatical bands of Circassians who have been let loose upon the people for its suppression, have done the insurgents the service of making all neutrality impossible. The Bulgarians comprise both the most peaceable and the most warlike of the Christians of Turkey; their forces have Servian and Russian officers at their head; and there is every prospect that the Christian populations of European Turkey will soon be involved in a deadly struggle with their Moslem masters. It is not easy to predict the result; for while a Mohammedan government is one of the feeblest and most wretched of instruments for any peaceful purpose, there is a grandeur about Moslem fanaticism, and an Asiatic recklessness of life in its "wars of zeal," which outweigh many disadvantages. And it is perfectly certain that the Turks will not leave Europe without first inflicting on their Christian subjects atrocities of which the riot at Salonica was but a faint foreshadowing.

THE decision reached on the Winslow extradition case, resulting in the discharge of that Boston swindler, and since then of Brent, the Kentucky forger, furnishes another chapter in the long story "How England observes Treaties." It is very certain that if she can afford to have established such a precedent as her interpretation of the Ashburton Treaty, we can. No nation has so much at stake in this matter as England; few so little as America. The interest taken by Americans in most questions of foreign policy is so slight,

that the Administration has not received the credit it deserves for the dignified and straightforward course it has pursued in this connection. And General Grant has never transmitted to Congress a more admirable message than that in which he announces that he will neither make nor receive any more applications for extradition, so far as England is concerned. This puts the wealth of all our great moneyed centres on both sides of the Atlantic at the mercy of any sharper who has wit enough to carry his plunder beyond high water mark; and it remains to be seen which country will suffer the more by this partial outlawry inaugurated by the Disraeli ministry.

Now let the President cover his last days of office with honor; by protecting with his veto the money which we are in honor bound to pay back to Japan, and to England from the Geneva award. Any evasion of our plain duty, to either nation, will be an everlasting disgrace to ourselves; but some such evasion seems likely to be carried through Congress before the session is over. It is true that the money paid over by England in trust for the sufferers by the Alabama and other privateers has been spent by Secretary Bristow in paying the ordinary expenses of our national government; but our credit is still good enough for the retrieval of that act of bad faith before any one is injured. Indeed, we learn that the Secretary has already put upon the market proposals for a loan to replace the fund.

THE strife of parties in France still goes on, in a way that shows that her people have never become truly a nation, in the sense of reaching an agreement on all the great fundamental questions of policy, while lesser issues are left for temporary adjustment. The great gulf of difference between Right and Left sunders the masses of her people; the Church and the Revolution are the two controlling forces of her thinking; and either party would rather accomplish their own ends with foreign help than forego them in deference to the popular will. The Centre, which to-day, as in Louis Phillippe's time, furnishes the working material of government, maintains its position chiefly by an indifference, bred of devotion to material interests, but partly by the influence of English example. But the Centre is strong only in times of exhaustion and indifference; an enthusiastic Centre is an impossibility, and only enthusiastic leaders can permanently carry France

with them. It seems as if the nation, by rejecting the reconciliation of intelligent faith with orderly liberty offered by the Reformation, were condemned to vibrate forever between the two extremes.

The hollowness and insincerity of the compromise now in power is seen in the ceaseless and embittered conflict between the parties on every topic of the day, and the absolute uncertainty on all hands as to what will follow when the time fixed for the expiring of the present lease of power has arrived.

One might see the germ and the hope of better things for France in the great educational scheme announced by the ministry, contemplating an independent university in each of the chief cities. But education is, after all, especially in France, rather an engine for the promulgation of ideas already accepted, and the extension of parties already formed, than for the breaking of new ground in either direction. In France, ever since 1789, it has helped to deepen and intensify the antagonisms of party; and before we look for any great help from that quarter, we are forced to ask, Who shall educate the educators?

BELGIUM, like France, is a country of irreconcilable antagonisms. She made a bad beginning in 1830, when her independence of Holland was secured by mob turbulence, and she was saved by England's patronage from the necessity of earning her place among the nations by those sacrifices which force people to understand the value of that place. Mobs have, therefore, a sort of divine right in Belgium; and the recent elections, which have reduced indeed yet maintained the Ultramontane majority in the Chambers, have been the signal for the "Liberal" outbreaks. The perversity of rural Catholics in voting for clerical candidates has been avenged by smashing the windows of Catholic club-rooms in the cities—this being thought the best way of bringing the less enlightened constituencies at a distance to a better mind.

THE month has been a most exciting period in our political history, and in some sense Mr. Jas. G. Blaine, of Maine, has been the central figure. Ever since his retirement from the Speakership of House, he and his friends have been laboring for his election to the Presidency. He has many qualities calculated to help him to the

end of his ambition. He possesses that personal magnetism which conduces to enthusiastic popularity. He has a fine sense for dramatic situations and telling combinations; he speaks well, and has the reputation of indomitable pluck. But his most marked quality is an audacious ingenuity, a fertility of resources, which reminds one of Sam Slick, or still more of the Tyll Eulenspiegel of the German *Volksbücher*. His record during the present session is an unbroken series of *tours de force*. He out-Granted Grant on the Public School Question, when the suspicion that he was himself a Catholic was believed to have prompted the President to raise that issue. He out-Mortoned Morton with "the bloody shirt," and roused into real life an amount of slumbering suspicion throughout the North, which will tell heavily at the next election. But here he overshot the mark, and excited the bitter enmity of the Democrats in Congress, especially from the South, and it was certain that no stone would be left unturned that they might give him a Roland for his Oliver. Well, they have done their worst; and after all they have come back shorn from that wool-gathering expedition. Any one of less skill, audacity and force of character would have been badly damaged by his enemies; but as it is, he has managed to put the whole party before the country as united in an attempt to destroy the reputation of a man, against whom they have proved nothing and know nothing.

The charge that Mr. Blaine had secretly acted in the interest of certain railroad magnates, to the abuse of his position as Speaker of the House, and had received certain shares of stock in consideration, seemed to break down at once when those gentlemen gave testimony before the sub-committee of the Judiciary Committee. But no report on the subject was made to Congress, and rumors of other evidence, affecting other dubious transactions, were current. A Mr. Mulligan of Boston appeared on the scene, with sundry letters found in the desk of Mulligan's employer, the late Mr. Wilson of Boston, relating to Mr. Blaine's connection with an Arkansas railroad. These letters Mr. Blaine got out of Mulligan's possession, not by the most courteous means in the world, and refused to let the Judiciary Committee read a line of them. Under the pressure of friendly advice, he read the whole package to the House, and then amid great excitement on all hands, charged the Judiciary Committee with the suppression of a telegram from one of his railway friends in London, fully confirming the exculpatory evidence already given. That this telegram had been

in possession of Mr. Knott, of Kentucky, chairman of that committee, for several days, and had never been laid before the committee, much less communicated to Mr. Blaine—as was done in Mr. Sherman's case—has an ugly look. But neither does it look well that it was first telegraphed to England from this city, and then sent back to Mr. Knott as if spontaneous.

As to the contents of Mr. Blaine's letters, there has arisen some difference of opinion. They certainly show that he had been trading in railroad stocks, and accepting them on special terms in consideration of his own "usefulness;" but they contain nothing to show that he did not mean to use merely his personal influence to induce others to subscribe for the stock, and the allusions to some who had suffered from such purchases of stock at his instance, and his own anxiety to protect them, confirm this construction. They certainly also relate only to the stock of a railroad which has not been concerned in any act of Congress since the presidency of Fillmore. While not among the number of Mr. Blaine's admirers, we do think that he is entitled to an acquittal on the evidence presented; and we do not envy his persecutors—for such we must call them, in view of the full display of their motives—the position in which he has placed them before the country. We think, however, that their motives are to be sought rather in what had already happened in Congress, than in what they expected to happen in the Republican Convention, although they probably aimed at inflicting upon this especial enemy a humiliation with his own party. We doubt if the whole affair made any difference as to his Presidential chances, either one way or the other.

THE Republican Convention, which met at Cincinnati June 14th, was a much more respectable and satisfactory body than that which renominated Gen. Grant in this city four years ago. It is very evident that the *prestige* and political influence of the office-holders has declined, under the scrutiny of the era of investigation; and that the President's control of this force has diminished since the Third Term scheme was given up. The whole civil service influence could not secure a decent vote for the favorite candidate of the Administration.

Mr. Blaine kept well ahead of all his competitors till the very last ballot, and the possibility of carrying any one of the prominent

candidates over his head was seen to be *nil*. His sudden prostration by heat and nervous excitement while attending church on the previous Sunday had seemed for a time to give vigor to his opponents, but his speedy recovery had turned the scale again. The vote of Pennsylvania was counted on by his friends, after a few ballots for Hartranft; and it was well understood that Secretary Cameron could not deliver the goods which the Administration had contracted for—the vote of our State for the candidate detested beyond all others by its people. The State Convention, in pursuit of the usual policy of making sure that the successful candidate should owe his selection to Pennsylvania votes, had instructed the delegation to vote as a unit. Mr. Blaine might have been nominated, had not this rule been broken down by the decision of the President of the Convention, and at the instance of some Blaine men, who were tired of casting fruitless votes for Hartranft, and who secured, after a fierce discussion, the right to vote as they severally pleased. By the sixth ballot, fourteen Pennsylvania votes had gone over to Blaine, and it was seen at once that something must be done to defeat him. A scene of wild confusion followed; delegations withdrew for conference, and when the Convention came to order again it was known that a compromise had been reached. Even now, after the withdrawal of Morton and Bristow by Indiana and Kentucky, and the abandonment of Hartranft and Conkling, another ballot would have been necessary had the majority of the Pennsylvania delegates been able to cast the vote of the delegation as a unit. But Rutherford B. Hayes, Governor of Ohio, the compromise candidate, received twenty-four of her fifty-eight votes, and thus obtained the nomination. The nomination of William A. Wheeler, of New York, for Vice-President, was easy and unanimous.

A compromise would have been reached long before the seventh ballot had not the Bristow men stood out against any surrender of their impossible candidate, whom they regarded as the only man with a claim to the votes of all parties in the Convention.

From the States on which the Republican party can count with certainty in the next election, Mr. Blaine received 167 votes, and Mr. Hayes 144. But when the doubtful States, whose support they need, are added, the majority is turned in favor of Mr. Hayes.

It would be absurd to say that the nominations have created

general or unqualified satisfaction. On the contrary, they have deepened the popular distrust of this method of nomination. It is felt that this plan prevents the selection of a man of national reputation, and necessitates the choice of some one whose "availability" is chiefly the effect of his obscurity. And when we look at some previous nominations, such as that of Pierce, we cannot with confidence rejoice in the exclusion of the better-known candidates.

We think it most probable that had the nomination been effected by the direct vote of the Republican party, Mr. James G. Blaine would have been the successful candidate. He has, more than any other man in the party, the qualities which excite popular enthusiasm; and while he would not have united all the elements of the Republican party in his support as Mr. Hayes will, he would have drawn a much heavier vote from the great and irresolute mass of citizens who are not active and zealous for either party. That he would have been what "the better self" of the nation is demanding, a President devoted to the reform of abuses and the correction of our methods, we do not see any reason to believe. But neither are we confident that Gov. Hayes will be—if elected—anything more than a respectably efficient President, who will leave our governmental traditions and machinery very much as he found them. He is a man of liberal education, great wealth, and great local popularity. He was one of the thousands of excellent and faithful officers to whom we owe the suppression of the rebellion; but he won no special distinction in the army. For three years he was a respectable member of Congress, but kept his mouth shut and exerted no influence upon the legislation of his country. He has been thrice elected to the Governorship of his native State, defeating successively three able Democrats, Thurman, Pendleton and Allen. Whatever promise is contained in those achievements, he gives us, but nothing more; and to those who look beyond the election to the policy of the coming President, the future is a blank page, fringed with the consolatory motto, "we might have done worse."

If the ticket we turned "topside t'other way" it would be vastly stronger. In national reputation, in active converseance with national affairs, the Republican nominee for the post of "heir apparent to the Presidency" is the stronger of the two. He prob-

ably owed his nomination to the fact that New York is regarded as a doubtful State ; but so far as we can judge, it has been hailed with unreserved satisfaction in all quarters.

WE hope that the more distinguished members of the Massachusetts delegation to Cincinnati will tell us something of their *visa et cogitata* during their attendance on the sessions of that body. Great things were expected of that delegation ; it combined "all the talents" of the Hub. Hosea Bigelow was there—taking notes, let us hope, for a more modern version of the "Speech of Hon. Preserved Doe." And there was his clerical equal, James Freeman Clarke, who horrified the State Republican Convention some years ago by standing up, solitary and alone, to declare that he would not vote for Ben. Butler if the convention were to nominate him for Governor ; and who made that admirable addition to our political epigrams : "A statesman thinks of the next generation, a politician of the next election." We fear Mr. Clarke was thinking a good deal of the next election at Cincinnati.

Somehow the Hub did not seem satisfied with her delegation. We hear growls to the effect that they were about the weakest and most powerless lot in the whole body. Of course they voted right, first for Bristow, and then for "anything to beat Blaine." But they did not quite realize all those magnificent prophecies that Emerson indulges in, about the sovereignty of intellect over the thoughts and desires of ordinary people. We do not suppose that the delegation themselves looked for any such results ; they and others like them, who overcame the dislike of strange surroundings, and went out of their beaten paths to discharge a very plain duty, must have done so with the feeling that they were casting bread upon the waters—were uttering a quiet protest against the bad tendencies both of the classes who do manage our political machinery and those who abstain from contact with it. But we are greatly mistaken if they did not feel just a little dizzy amid the workings of a great convention, with whose motive forces and lines of operation they were unfamiliar. And they must have come back with a trifle more of respect for the practical politicians, and a trifle less confidence that "the scholar in politics" will have an easy task in getting control of the political movement. On this, as on many other points, Hon. P. Doe is right.

.....The'ry is jes' like a train on the rail
 Thet, weather or no, puts her thru without fail,
 While Fac's the old stage that gets sloughed in the ruts,
 An' hes to allow for your darned *efs* and *buts*,
 An' so, not intendin' no pers'nal reflections,
 They don't—don't not allus, thet is—make connections.

THE Cincinnati Platform is better than we had hoped. When the elevation of Gen. Hawley to the chairmanship of the committee was announced, the hard-money men announced their triumph; but when the actual work of the committee was presented, their gains were found to be like Addison Alexander's religion—he had “none to brag of.” That standing threat of financial destruction, the Resumption Act, was not endorsed, as had been expected; and no denunciations were hurled at those who deny that our financial existence, as a people, depends upon the possession of masses of yellow and white metal. Of course the speedy resumption of specie payments was held up as an ideal not to be lost sight of. We are all agreed on that; we are all ready for specie payments when the United States Treasury has the wherewith, and are quite prepared to support any *sane* proposal for the accumulation of specie. But some of us are not prepared to vote for resumption on the basis of the figures given in that exciting work of fiction, Mr. Bristow's Report to Congress on the Gold Balance. Nor are we ready to support an act for wholesale funding of the national currency, with the certainty that the banks will be obliged to cancel their circulation still more rapidly. No currency is not better than a bad currency; and the way to a better is not the wholesale destruction of what we have. And many of us do not see why the improvement of our currency by its being made convertible should be postponed until the national acquisition of coin makes a real or a seeming resumption of specie payments possible. We say “a seeming resumption;” for to restore our money to the status it held before the war would be no better. We had in circulation little else than vast volumes of paper, whose value fell to nothing as soon as any real demand for its conversion into coin was made by the public. With none of these convictions does the Cincinnati Platform interfere.

Equally judicious and equally cautious is the Protection plank.

It shows that, after all, the rank and file of the Republican party are of the mind that our industrial independence, as a nation, is desirable and possible; and that, while there is no wish to state this conviction in terms likely to give offence to a dissenting minority, there is just as little readiness to give up, or to cloak the conviction of the majority.

THE investigation season seems nearly over. The charges in regard to mismanagement in the Navy Department have been so far substantiated as to make clear that some of Secretary Robeson's personal friends traded very freely in the prestige conferred by his friendship, and levied black-mail on Navy contractors. We do not see that complicity in this conduct has been proved against the Secretary; but by the instinctive application of the rule, *noscitur a sociis*, he has suffered in popular esteem.

On the other hand, the charges made against Speaker Kerr have broken down utterly, and their author, Mr. Hardy, has been consigned to the hearty contempt of all honest men by the unanimous vote of the House, declaring them without foundation. There may have been more "dramatic" passages during the history of the present Congress, but there have been none that did that body more credit than when they rose as one man to declare their confidence in the integrity of their absent Speaker, whom serious illness had prevented from conducting his defence. It is especially pleasant to know that it was a Republican member of the Investigating Committee who did the most to explode this wicked fiction.

THE necrology of the month records losses chiefly to the republic of letters. Bonn University has lost its great Professor Lassen, whose *Indische Alterthumskunde* is perhaps the crowning glory of German scholarship. It was written in his study, for he was never out of Germany in his life; but is so thorough and conscientious that scholars who have spent half a life-time in India continually appeal to it as settling all sorts of doubtful questions about the very provinces with whose history they are most conversant.

By the death of Henry Kingsley, literature loses a wholesome and vigorous writer of fiction. There was always something over-

strained and unreal in his books, which deprived them of the highest rank as literature. After reading them one felt as if awakening from a dream to the world of realities. And they are not elevated by the lofty moral and social aims of his big brother's books. But they are wholesome, English and manly, and we wish he had lived to write many more like them.

George Sand (Madame Dudevant) was one of the last of her generation in French literature, though there are still left Victor Hugo and a few besides. She was one of the highest specimens of a character in which the absence of moral principle was but poorly supplied by sentiment, and her early life was a long struggle with both the righteous laws and the barren conventionalities of society. Her writings are among the most splendid specimens of French style; for she was endowed with the artist's instinct for form and beauty of expression. But, on the whole, France and the world would have been the better if she had never lived, although she was, in point of literary power, the greatest woman that the land of Seigne and de Stael has produced.

President Stearns, of Amherst, has left behind him the record of a useful and faithful life, much of it spent in a position of great responsibility. Another educator, who has just died, if less widely known, will be more vividly recollected in Philadelphia. Dr. Samuel Wylie Crawford was a school-master of the old school, who flogged like Busby or Bowyers, and believed that the *ferule* was the sacred reed in which Promethean fire came down to earth. His scholars, forgetting their breechings, and remembering his thoroughness as a teacher, revere his memory. He was, we believe, a native of South Carolina, and was educated by the relative whose namesake he was. His son, Major-General Crawford, shed the first blood in defence of the Union, being wounded at the defence of Fort Sumter, of whose garrison he was the surgeon. He died June 12, at the residence of his younger son, Rev. Dr. J. Agnew Crawford, of Chambersburg, where he had resided for several years past.

THE ADVANTAGES OF THE CO-OPERATIVE FEATURE
OF THE BUILDING ASSOCIATION, COMPARED
WITH OTHER PLANS OF SAVING.

FRANKLIN has said to all who labor: "If any one tells you that the workman can become rich otherwise than by Labor and Saving, do not listen to him—he is a poisoner."

Become rich! Not in the sense of the suddenly-acquired millions of the present day; but rich in the sense of the modest competence of one hundred years ago. Rich in the accumulated value of hours of overwork. Rich in the power to repose in age on the surplus energies of a well-ordered life.

The life of the perfect worker seems fully rounded when he gives satisfaction to all who employ his skill, knowledge or strength. To the view of all outside of the worker himself there seems to be nothing left out; he supplies and satisfies all the demands made upon him by those who employ him,—and that is all *they* ask of him.

But this is not all—there is a duty owed by the worker to himself; and workmen of all kinds and classes have long ago discovered that their lives are not fully rounded nor their work complete from their point of view, unless they can in some way retain and keep for themselves some share of the gain resulting from their work as a reserve for future use. They have long ago discovered that the words of the sage and philosopher were fitly spoken; and that it is not only necessary to *labor*, but that it is requisite to *save*, in order to make the life of even the humblest laborer a success.

The disturbing and fretful history of the struggles between Labor and Capital—a long and troubled story of stupidity and ignorance, of crime, selfishness and error—shows forth one phase of the efforts of workmen to wrest from the wealth he has so largely aided to accumulate, a portion to hold on to and call his own.

This is the history of the antagonism between capital and labor.

There is another phase of the struggle—a quieter, calmer history, showing better results—wherein it will be seen that labor and capital have gone hand in hand, measuring out to each other the equitable share of each in the joint work, and reaping alike of its gains; a history from which workmen have learned that organized labor is of little lasting benefit without organized and systematic saving.

The history of the various steps by which this movement reached its present degree of perfection and efficiency is one of great interest and practical value, and has within a very recent period excited the attention of earnest and thinking men in all parts of our country and England; and what is popularly known as the "Building Association," as it exists in the city of Philadelphia, has received the careful study of many practical minds; and justly so, for Philadelphia contains within her borders evidences of a system of persistent and enlightened savings, reduced to a science and carried out to practical results more fully and completely than in any other city in the world.

I propose to explain, in an intelligible form, the system of popular banking carried out through the organization and work of the Co-operative Savings and Loan Association. This may best be done by comparing the co-operative plan with other well known and popular systems having for their object the accumulation and increase of money for economic or business purposes.

In nearly all the numerous forms of business and monetary corporations created for profit, there are at least two and sometimes three classes of members. Each of these classes stand in different degrees of responsibility toward the particular enterprise, and share differently in the results flowing from it.

As between these several classes the result is not mutual. There is always a preferred class with respect to the proportion of profits returned—one reason for this being that they are made to stand as surety and guarantor to the remaining classes to the extent of the capital invested. Another reason is that they take upon themselves, in addition to all risks of loss, the burden and expense of executing the business or trust imposed upon them by the charter and laws under which they exist. For these reasons this preferred class claim, and legally and morally possess, the right to make all laws and rules for their own government, not inconsistent with their organic law; and this without consulting in the least the wishes or the wisdom of the other classes.

Among monetary corporations, for example, the bank of issue, discount and deposit, is composed of a preferred class of stockholders governed and regulated by the laws especially enacted for their creation and management. This preferred class assume the chief burden of responsibilities and risks, and reward themselves by dividing equitably the resulting profits of the business.

Next we have a second class of persons—the note holders—who are to a certain extent also preferred to a third class—the depositors.

This second class receive no share of the profit of the bank, and are benefited only to the extent of being provided with a convenient and available circulating medium guaranteed by the capital of the first class.

Last in order is the third class, who use the bank for the purposes of deposit and discount, and who come in after the second class for the benefit of the guarantees offered by the first class, or stockholders.

Under this form of corporation we see the business managed by a small minority of all the persons seeking the various grades of benefit to be derived from its operations. These take all the responsibility, assume all the burdens of management, and reap all the gains resulting from the employment of the capital derived from the stock, the notes and deposits. In this form of organization, then, we see class government prevailing. Beyond affording to the masses a guaranteed representative of value as a circulating medium, it is available to the capitalist or man of business credit only.

The working man, the artisan, the employé cannot make it available to his own peculiar wants and circumstances; he has no credit to offer it, he can give no security to it for any obligation he may desire to make with it, he is entirely beyond the reach of its patronage or its influence.

But the ingenuity of the capitalist, under the mixed influences of self-interest and benevolence, has devised the means of reaching down a helping hand, in a limited degree, to the masses, by the creation of the popular savings bank. These institutions are formed on two different plans.

In one of these forms there is a preferred class, in the character of the stockholder whose paid-up capital guarantees to the second or depositing class the safety of its savings, with the return of a small fixed increase on them. Here again the preferred class reaps the benefit to be derived from the profitable investment and manipulations of the capital accumulated by the two classes, over and above the fixed percentage of interest agreed to be returned to the second class.

The other form of these institutions—and one of the most unselfish, benevolent, and doubtless the most secure of any of the forms

of guaranteed savings and accumulation yet devised—is that wherein the entire business is committed to the management of trustees.

Beyond the compensation allowed to the executive officers and clerical force necessary to properly conduct the business, there is no preferred class other than that composed of the depositors.

But even in institutions thus formed, the profit resulting from the very careful investment of the capital gathered in is divided into two classes. One of these, in the shape of a certain stipulated percentage, is returned to the depositor; and the other, after deducting expenses, is devoted to the creation of a reserve fund to stand as a guarantee against loss. Here the result to the depositing class is alike in each case; the only difference being in the character of the guarantee offered. In one case there is the stock capital, which after reaching its limit ceases to increase, but returns a yearly profit in the shape of dividends into the hands of its owners. In the other case there is the reserve or sinking fund, always under proper management an increasing element of strength, to protect the frugal against loss, and insure a certain average of increase on his investment.

But in each of these systems of savings and increase the governing power is withheld from the depositing class, who in all cases furnish the bulk of the capital. They have no voice in the selection of the management, or the making of the rules which govern them. The only advantage offered is a safe place of deposit for occasional savings, with a return of profit by way of a fixed sum of interest.

The depositor has no credit with the institution beyond the amount of his deposits. He cannot borrow from it to buy himself a house, or for any other purpose. He possibly cannot borrow even to the extent of his own savings. If he wants to use his money, he must withdraw it.

While, therefore, the properly-conducted savings bank opens a very wide field of usefulness, and supplies in a very large measure the wants of a certain class of the working public, it does not reach down far enough or spread out broad enough to suit all.

It will be observed that a marked peculiarity of these forms of combination exists in the class government, or aristocratic feature, prevailing through all the details of the system.

They are little monarchies within the circle of their powers and privileges.

They have for an aristocracy a preferred class of stockholders.

These choose a king and call him president ; they create a nobility and call them directors. The rule of this aristocratic class is supreme. The depositors are the common people; they have no voice in selecting rulers, in the management of affairs, the making of laws, or in the disposal or investment of their money. They are not even represented in the directory, in the corporate House of Lords, let us say. To such an extent is this exclusiveness carried out, it frequently happens that they are not even favored with a report of the financial operations or the true condition and standing of their monarchical institution. The direct tendency and effect of this form of combination is to keep the working classes, to a certain degree, below their proper intellectual and social level. Under its patronizing care the workingman has no occasion to exercise any judgment in the selection of an investment, beyond the mere act of carrying his little savings to the bank and there leaving it; never gains any experience beyond the mere act of hoarding in a mechanical sort of way; gains no knowledge that would enable him to manage for himself a comparatively large sum of money; and, therefore, by keeping him in ignorance of the various means of investment and accumulation, chains him to a life of mere dependence on the skill and knowledge of others, in the management of his savings.

There is nothing about the system to stimulate to self-action, to encourage thought or speculative inquiry, to increase or lead to a knowledge or intelligent understanding of the various ways and means of accumulation and profit. It merely encourages men to save all they can squeeze from the necessaries, or deny themselves of the luxuries of life, and there it stops.

There is another peculiarity of the Savings Bank system which is worthy of notice; and this is the absence of harmony and unity of action on the part of the depositing class. In a large and successful Saving Fund, there will be perhaps many thousands of members, all acting in complete independence of each other, and in entire indifference as to what each one is doing. The capital thus accumulated is made up of great numbers of small sums, of all degrees of difference in amount, and these sums are paid in at uncertain and irregular periods. Of the many thousands of accounts, perhaps no two would be found exactly similar in all respects. The clerical labor necessary to correctly state each individual account, and to make the calculations of interest from time to time, is very

great. This causes a heavy expense for the hire of competent accountants.

The capital thus accumulated amounts frequently to a vast sum, requiring great financial skill and experience in the management and investment of it.

To obtain this ability, another heavy outlay is necessary.

The character of the securities taken for investments being largely of a negotiable nature, together with the large amount of ready money necessary to be held to meet the uncertain demands for the withdrawal of balances, necessitates a heavy outlay for thief- and fire-proof safes, and all these add greatly to the expense of management.

Thus the system resolves itself into a scheme by means of which, for a consideration, capitalists, under the Stock organization, undertake to assume the responsibility and do the thinking for the masses; or on the other, under the Trust plan, into a scheme of ponderous and expensive benevolence and patronage, tending in each case to the results hereinbefore alluded to.

Against this system and its objectionable features, intelligent and independent leaders among the masses in Europe and America have ever exerted an opposing influence, which has developed into a complete counter-system, comprehending within itself all the advantages of the Savings Bank, and in addition, gives to the people the full control of their business, and all the profit that can be obtained from the capital employed.

This opposite system is popularly termed Co-operation. In its application to the purposes of saving and increasing the spare moneys of the masses, it came into active use in England, in the year 1812, and took shape in the form of what has ever since been known as the Building Society. It soon became popular, and spread into Scotland, Wales and Ireland; and under various combinations of which the system is capable, has grown and increased to vast proportions.

Although the co-operative plan of saving had its origin in Great Britain, and has been carried out with more or less completeness there, there have been many departures from the true co-operative idea of complete equality of interests. Many large corporations have grown up in that kingdom within the past twenty-five or thirty years which are based on the annuity principle, by means of which

the depositor is promised that for the payment of a fixed sum of money at regular and stated periods he shall receive a certain ultimate value in money within a given time—thus placing the depositor at the mercy of a governing class, who delight in the name of Patron. Here again we see the educational and self-dependent feature, so peculiarly a part of the co-operative plan, entirely given up, and the depositor becomes a mere machine in the hands of others, who profess to do his thinking for him.

In Pennsylvania and in many of the other States of the Union, however, the co-operative idea has been more fully and completely carried out, perhaps, than in any other part of the world where the system has to any extent been developed.

In the year 1831 the first American Building Association was organized in Frankford, Philadelphia. It was formed on purely co-operative principles, and carried out its promises in ten years and six months from the date of its first meeting. It was the model upon which all the co-operative savings associations in Philadelphia and throughout the State of Pennsylvania have since been formed, and the system has gradually spread into nearly all the Middle, Southern and Western States. To thoroughly comprehend the strength and durability of the system, its immense power for good, the hold it has upon the masses everywhere, so soon as they grasp its meaning and can see its machinery at work, one must master the science of co-operation—solve its simple problems and few plain rules. This can best be done, perhaps, by first defining what constitutes co operation, and secondly by examining into some of the various combinations upon which a co-operative savings bank may be based.

“True co-operation,” say Mason and Lalor (Prin. of Political Economy, p. 38), “exists only when every one who has contributed to the production of anything receives a share of its proceeds in proportion to the worth of his work. If his capital or his labor has done half the work, he owns half the product. If he has done $\frac{1}{1000000}$ part of the work he owns $\frac{1}{1000000}$ part of the product.” Dr. Elder, in his “Questions of the Day,” defines the term as follows: “In common use the term *co-operation* is restricted to such organized combinations of individuals as are designed to relieve them as far practicable of intermediaries in productive industry or commercial exchange. Co-operation is partnership in profits *equitably distributed* in proportion to the severalties of capital, labor, skill

and management." Let me quote one more authority who has defined the term. Says George J. Holyoke, an eminent English advocate of co-operation, and an able writer upon the subject: "Co-operation, in the social sense of the word, is a new power of industry constituted by the equitable combination of worker, capitalist and consumer, and a new means of commercial morality, by which honesty is rendered productive. It is the concert of many for compassing advantages impossible to be reached by one, in order that the gain made may be fairly shared by all concerned in its attainment. From the commencement of human society co-operation has been common in the sense of two or more persons uniting to attain an end which each was unable to effect singly; the benefit, however, always accruing to the stronger. As society grew, crowds were coerced into acting together by their sagacious masters, when king or chief had his own way with any profitable result; in modern days the capitalist has had it.

"It is still common to regard the laborer as being under great obligation by being supplied with the bare wages of subsistence, while he aids in creating or augmenting the wealth of his employer. This is concert of labor, but it is the mere concert of compulsion and necessity, disguised under a loose use of the term 'co-operation.' The workman under this kind of co operation lives under the tyranny of profits maintained by force, and only tempered by the sympathy of the kind-hearted rich, by the pride of patronage, by the master's fear of discredit among his neighbors, or dislike or dissatisfaction among those he employs, or the dread of resentment arising from individual monopoly of mutually-earned profits. The co-operation of later days begins in mutual help, with a view to end in a common competence. A co-operative society commences in persuasion, it proceeds by consent, it accomplishes its end by common efforts, it incurs mutual risks, intending that all its members shall mutually and proportionately share the benefits secured."

This much as to the meaning of the term. Let us now examine into some of the various forms of setting up co-operative machinery; the adjustment of the numerous parts of a given scheme, and the different combinations into which the parts may be arranged.

There are three distinct forms or classes into which co-operative business associations may be divided. First, we have combinations of laborers whereby the profits arising from the joint labor of a number of individuals in the manufacturing and mechanical branches

of employment are equitably distributed to each laborer in proportion to his share in the work.

Secondly, There are mercantile combinations known as co-operative stores prevailing very extensively in England and some parts of Europe at the present time; and under the influence of the Granger movement in this country, are finding advocates and supporters here. These "consist of partnerships of consumers, who purchase in gross such commodities as they require for ordinary use, and distribute them according to their several needs at the lowest possible cost of distribution, being jointly the owners and venders, and severally the final purchasers of the goods provided."

Third, and last in the natural order of progress, is the financial combination known as co-operative banks or saving funds. In Germany they are called credit banks; in England and America they are designated building societies.

It is however to the principles of co-operation as applied to banking, we now confine our attention. But before dismissing the two first divisions of the subject it may be observed that in all the forms adopted to carry out their work on pure co-operative principles in all the three branches named, the labor and capital is furnished by but one class of members, and the profit of each enterprise is mutually and equitably distributed to the same class. At the same time, from the nature of the combination thus formed, each becomes surety and guarantor for all, and all for each, against possible loss.

In the formation of the purely co-operative money bank, such as our American building associations aim to be, the mutual and equitable feature is capable of being brought out more clearly, fully and completely, than in either of the combinations based on labor or merchandising. This is doubtless owing to the fact that the principles of co-operation are capable of a nicer adjustment. There is a greater equalizing of interests and responsibilities, the equities of the scheme are susceptible of being enforced with greater accuracy, the transmutations and changes of the capital employed never cause it to lose its character of money. It is never of a mixed nature, as in the two first-named forms, wherein the interests consist of labor at changing rates of wages or merchandise purchased at varying rates of cost, or sold at changing percentages of profit. In other words, the operations of a co-operative money bank are simpler, and consequently can be more readily followed up. In addition to this

they are capable of application to the wants of all grades and classes of the working public ; and are therefore more generally adopted at the present day than any other form of the system yet devised.

The Co-operative Savings Bank is adjusted and combined in such manner as to completely do away with intermediate or preferred classes, and to reduce the expense of management to an almost nominal figure.

This end is accomplished—First, by restricting the membership to one class of depositors, contributors or stockholders ; Second, by designating a fixed sum of money as a contribution or instalment toward the capital which is to co-operate in producing a profit ; Third, there must be a certain and regularly recurring period of time for the payment of the fixed instalments ; Fourth, the capital must be divided into shares each equal and fixed in intermediate and ultimate value.

The amount of each instalment is most generally placed at one dollar. The periods of payment occur monthly, and the ultimate value of each share is placed at \$200, in a majority of the societies in Pennsylvania and throughout the U. S.

Prior to the year 1874 the limit of shares allowed to each association in Pennsylvania was 2500, which, at \$200 each, indicate a prospective or ultimate capital of \$500,000. By the new law passed in April, 1874, this ultimate capital has been increased to \$1,000,000.

The money accumulated under this arrangement and combination of parts at each monthly period is paid by members only, and is immediately loaned, at a premium bid at an auction sale of the funds on hand, only to members. Thus all the advantages gained are strictly kept within the limits of the membership of the particular association.

It will be observed that owing to these fixed instalments and fixed periods of payment, and the equality of each payment at any given time, that one share in a given issue or series of stock is always a counterpart in value of all the other shares in the same issue or series. Therefore, when the value of one share is adjusted, all the other shares are found to be of a like value.

The process of adjusting values and stating accounts in a society thus organized is so simple and easy of accomplishment, that one competent accountant can correctly record the year's business of the

largest association, and at the annual adjustment of the books, in a few hours ascertain the exact condition of the entire enterprise, as well as that of each individual account. Thus great economy in the item of clerk hire is attained.

The securities taken for money loaned being all of the nature of unconvertible bonds and mortgages of real estate, conditioned for the performance of agreements which can only be enforced by the particular association; a fire-proof safe is all that is necessary to hold the books, papers and securities. There is therefore no necessity for expensive banking houses and thief-proof vaults, combination locks and relays of watchmen.

The annual working expenses of an ordinary building association, with a capital of \$200,000, do not exceed an average of \$500, including salaries.

The government of these societies is completely democratic. Each member has a voice in the selection of officers and the making of laws, and claims and freely exercises the right to stand by and see and hear the directors transact all business in open meeting. Thus, maladministration is almost an impossibility, and jealousy, distrust and suspicion are almost unknown. Party divisions seldom occur, and never without a good cause. The changing of officers at annual elections is of very infrequent occurrence. Many executive officers are holding positions to-day which they assumed 10, 20 and even 30 years ago. In short, the system is one of such complete harmony of construction and unity of purpose that it exerts a salutary influence upon the very nature of man; and while it tempers self-interest with equity, it brings out in full force brotherly kindness and charity, friendship, love and truth, and throws them all into the general fund among the dollars and cents of the enterprise, and they all become parts of a noble scheme "by which honesty is rendered productive;" and wherein the moral qualities of man become a part of the capital employed.

The temporal profit resulting from one of these combinations is large, because it is all the profit that can be obtained beyond the very slight cost of producing it.

A given number of persons agree to create a monthly fund by their individual contribution, resulting in an aggregate sum of say \$2500. This loaned to members at a premium of 30 per cent. will produce \$750. The premium thus retained being also loaned at 30 per cent.,

gives a farther increase of \$225, and this latter sum loaned at 30 per cent. gives an additional profit of \$67.50, making a grand total of \$3542.50, as the capital and its increase at the one meeting. In addition to this the loans thus made will continue to produce a monthly sum of about \$35 as interest, which, falling into the general fund, is loaned at the same rate of profit as the original sum. The transactions of all future meetings are but a repetition of those of the first, and continue thus until the capital paid in by the members, and the profits derived from premiums and interest upon it, make a sum sufficient to divide to each share \$200, and the scheme is at an end.

To illustrate this manner of increase more fully and clearly, we will follow up one thousand dollars of this fund and its increase to the close of the business of one meeting; \$1,000 loaned at a premium of 30 per cent. gives a gain of \$300; this sum of \$300 loaned at 30 per cent. gives a new profit of \$90; the last sum loaned at 30 per cent. gives a profit of \$27. Add these three premiums together and we have \$417, produced by this one sum of \$1,000, or $41\frac{7}{10}$ per cent., while each individual borrower paid but 30 per cent. The same illustration applies to each dollar paid as interest each month. The premium it commands is loaned at a premium, and so on to the end. In addition to this, the money paid in as interest, being immediately loaned out again at interest, it follows that interest is compounded monthly, and here is another large item of profit.

Some persons, ignorant of the principles of the properly-adjusted co-operative combination, conceive that where such heavy sums are realized as profits some one must be oppressed with heavy burdens. To prove that this is not the case, let us examine into the result as it affects the individual borrower.

At the close of each fiscal year the accounts of each association are footed up, the net gain for the year ascertained, and equitably distributed to each share of stock; and this without regard to the holder thereof being a borrower or otherwise. If a member does not borrow an advance on the future ultimate value of his shares, he simply continues the payment of his fixed monthly instalments or dues until, by the accumulation of capital and profits, his shares are declared worth the fixed ultimate value of \$200.

The case of a borrowing stockholder is somewhat more complicated than that of the non-borrower; he occupies two positions in respect to the association.

While the non-borrowing shareholder is a creditor only, the borrowing member stands in the opposite relations of debtor and creditor, at one and the same time. What is technically called a loan, is in reality an advance on the future ultimate value of his shares. The agreement he virtually makes with the association in his mortgage is not that he will repay the loan, but that he will continue to pay his monthly installments and interest until his shares are worth \$200 each; and when this point is reached, the two positions of debtor and creditor are cancelled. Thus the debt due by the stockholder is cancelled by that due him by the Association.

In this relationship of creditor, on the part of a borrower, will be found the causes which work to effect a nullification or reduction of the seeming burden which he apparently sustains as a debtor. If we separate the two positions, and examine them, without regard to the ways and means by which they work together, and result in harmonizing and equalizing conflicting interests, we are apt to be led from the correct means of solving the problem which presents itself. But if we place the two positions side by side, their effect upon the ultimate result appears at once.

We will instance the case of A. who is a member holding 5 shares. As a non-borrower, he would simply pay \$5 each month, until his 5 shares were found to be worth \$1,000. Wishing, however, to realize this ultimate value in advance, he bids a premium of (we will say) 30 per cent., receiving the net sum of \$700, leaving the premium of \$300 in the fund to be loaned and increased as previously instanced. In addition to his former payment of only \$5 per month, he now pays a further sum of \$5, being the monthly interest on the gross sum of \$1,000, with which he is charged. His payments are, during the continuance of his position as borrower, \$10 per month, or \$120 per year.

The average time it takes an association to run out being 10 years, it follows that the borrower would pay in that time \$1,200, or \$500 more than the \$700 originally received by him as an advance on his shares, and his debt would be paid.

But how is the debt paid? It is paid by his 5 shares of stock, which have reached a value of \$1,000.

By the process of apportionment of profits equitably to all the shares of stock into which the capital is divided, his 5 shares receive a portion of all the profit accruing from premiums or interest.

In doing this, his shares receive their equitable allowance, not only of the gain made on all other advances to members, but he actually receives back an equitable proportion of the premium and interest paid on his own loan by himself.

By this means, the cost of the advance of \$700 for 10 years will be reduced to 7 per cent. per annum.

In the meantime the borrower has applied the \$700 to the purchase of a house and has saved the payment of rent; or, already owning a house, has utilized the value that would otherwise be locked upon it, by placing it as security for the money advanced, and using the money in some business enterprise or in buying another house, which he does not have to mortgage for the purpose. The premium of 30 per cent. originally paid by him is thus gained back to him, either in the rent he saves, or the profits received from the business enterprise, or the rent he receives from the second house purchased with the money advanced.

The illustrations by which this compensating quality of the properly adjusted co-operative scheme may be demonstrated are manifold. Those already instanced serve to give a partial view of its results.

The want of time and space prevents a more elaborate illustration of the principle.

I have selected 10 years as a basis for my illustration, this being a fair average period for reaching maturity or ultimate value, taking one association with another throughout the United States. There are many marked instances wherein this end has been reached in much less time, correspondingly reducing the percentage of cost. The Union Building Association of West Philadelphia, now 22 years old, has matured several series in $7\frac{1}{2}$ years. The Tradesman's Building Association, located in the 13th ward of this city, and over 24 years in successful operation, has matured several series in about $8\frac{1}{2}$ years. While the Quaker City Building Association, located in the same neighborhood, has matured some seven or eight series in a little less than 10 years each. This association is over 30 years old. I might thus indefinitely extend the enumeration of societies which have matured their shares at periods varying from $7\frac{1}{2}$ to 10 or 11 years, showing that the success and progress of each association is influenced by its own surrounding circumstances and conditions of higher or lower premiums, greater or less withdrawals of capital, more or less losses, which happily are not of frequent

occurrence, or of a damaging nature, but simply have a retarding effect upon the progress of the scheme.

With respect to the security of the investments made by the co-operative system of banking, attention is directed to the fact that they are of a character which is always on the increase. Each bond and mortgage is in a continual state of liquidation, each monthly payment decreases the debt and correspondingly increases the margin of security above the amount due and secured by the mortgage. In other words, as the borrowing stockholder's debt lessens on the one hand, his credit increases on the other, and the offset to his debt in the shape of his constantly-increasing shares gradually liquidates both obligations.

I have thus presented a few of the more marked and leading features of the mutual and equitable system of co-operative banking, and have placed them in contrast with other popular forms of association having mainly the same object in view; in order that the merits peculiar to each may the better appear. Each system honestly conducted has its appropriate and distinct field of usefulness in organizing and utilizing thrift and economy, and encouraging the masses to gradually lift themselves above the dead level of daily toil, by uniting with their labor the art of saving.

No study can more profitably engage the attention of the mind bent on the improvement and advancement of mankind in all his social relations, than the simple science comprehended within the few plain and equitable principles which govern the co-operative combination.

Is is a study which will bear the closest scrutiny as to its inherent merits and practical results. A thorough knowledge of its principles and a just appreciation of its social value is as yet confined to a few. As a result of this, the laws under which it is allowed to exist are everywhere very imperfect and incomplete exponents and supporters of its principles. In spite of these adverse circumstances, the faith and energy of the people of Philadelphia have combined to achieve results which nothing but true merit could accomplish; and they point with confidence in the strength of their system, to the results of its work as shown in the facts and figures which have been heralded throughout the land. Two things are requisite to the complete success of co-operate work in any community: one of these is the general knowledge of its principles, and a thorough appreciation of its advantages on the part of the people who seek to use it; and

the other is, that it should be properly authorized, fostered and protected by comprehensive laws, amply providing for the enforcement of its contracts and obligations.

Co-operation is the opposite of competition. Under the competitive system we are told that 97 out of every 100 merchants fail. What a record! "Competition is the life of trade." *But it is the death of the trader.*

Wherever competition reigns supreme, there man will be found with his hand at his brother's throat; where co-operation prevails, there brothers will be found clasping hands.

Competition presents a seething and restless mass of humanity, bent on overreaching one another. In climbing up the hill of life, they seize the feet of those above them and pull them back—the strong overpowering the weak, and elevating themselves on the prostrate bodies of their fellows.

Co-operation presents a united band ascending the same hill—the strong helping the weak, and the weak aiding the strong.

Just here the language of Franklin comes to the aid of Co-operation. It teaches that workmen can only succeed in life by being *industrious* and *frugal*.

Thus they obtain the means of effective co-operation. They cannot succeed, however, by being only one of these two things. If they are industrious and fritter away their earnings in support of unreasonable and oppressive labor organizations, having for their real object the destruction of capital in the hands of others, they only add fuel to the consuming fires of competition. They are united, it is true; but like an army marching through an enemy's country, they are united for purposes of destruction.

A community of patient, diligent, frugal and contented workers, recognizing fully the power and the beauty of co-operative effort, are like an army of road-builders—they improve the barren places of the earth, and make them to bloom as the rose. In place of wasting their hours in empty repining, and their strength in useless opposition; instead of listening to the idle talk and empty theories of the "poisoner" and demagogue, they unite, not for the purpose of overthrowing capital, but with the design of becoming in good time capitalists themselves. Thus my text points the way, and co-operation supplies the means, of creating that almost millennial state of existence for the working classes, which has been the dream of the reformer since civilization first dawned upon the earth.

EDMUND WRIGLEY.

WAS SHELLEY CONSISTENT?—II.

SHELLEY'S fourth most noticeable characteristic was the strength and breadth of his sympathies. They were cosmopolitan; he was a born philanthropist. He profoundly pitied the unfortunate, making their cause his own. He lavished his income, sacrificed his ease, endangered his health, to compass his purposes of love. Although his name was cast out as evil, and an almost universal social ban rested upon him, his philanthropic zeal never abated. He set out on his last sail on the sea that he might the sooner welcome to Italy one whom he had already helped out of hopeless debt by a princely donation. His body was washed ashore on the coast of Tuscany, and in conformity to quarantine regulations, was by his friends reduced to ashes. These were deposited afterward in the Protestant burial-grounds at Rome at the foot of a moss-grown tower near the remains of poor Keats, his illustrious but ill-starred countryman, in whose poems, a copy of which was found open in his pocket, he had evidently been seeking solace and inspiration just before the storm struck him. On his tombstone appears the simple inscription, "*Cors cordium.*" No more fitting tribute could have been paid his memory.

His acts of benevolence beautified and brightened almost every day of his life. It seemed impossible for him to witness distress or hear its story without instantly planning its relief. One day rambling in the fields he met a little girl bewildered and shivering with cold. It was not long before she was sitting on his knee, drinking a bowl of warm milk which he had purchased for her at a neighboring farm house. Frequently at Hamstead, in mid-winter, while on his way to a coach-office to take passage, he would encounter some poor unfortunate, and after listening to her pitiful tale would empty his pockets of his last shilling and cheerily start off on his journey afoot. Once, on his way to a friend's residence, he noticed in the street a woman limping with bare feet over the stones. He quickly slipped off his shoes and pressed them upon her acceptance. His cashier was called on to honor order after order for small amounts issued to beggars who had approached him after the resources of his purse had become exhausted. On a certain occasion he found a courtesan lying helpless by the roadside, thrust out from some brothel

by the heartless wretches who had shared her shame. Unwilling to see even this social castaway abandoned to her fate, he carried her on his back a considerable distance to a place of shelter. He visited the poor lace-makers at Marlow in their damp and fireless abodes, distributing blankets, coal, food, and medicine according as they had need, even tenderly nursing them in their sickness. It was while watching in one of these hovels he caught ophthalmia, which nearly cost him his eyes. He once walked a hospital that he might become a more efficient nurse. He was on one occasion spending a little time in North Wales where his friend Maddocks, who was then in England, had built an embankment whereby thousands of acres had been redeemed from the sea. Shelley discovered that it was becoming dangerously weakened by the waves, and in order to raise means to repair it, he immediately drew up a paper, heading it with a subscription of £500, a sum he could ill afford, and then diligently circulated it among those living near. Numerous instances are related of his active benevolence during his short winter stay among this people.

In London one evening about dusk he and his college mate Hogg, weary of their walk, were on their way to the hotel for tea. As was their wont, they fell into animated debate. While Shelley was maintaining his opinions with great warmth, entirely unmindful of the throng through which he was threading his way, he suddenly stopped, then pushed his comrade unceremoniously through a narrow door that opened into the shop of a pawnbroker. This strange maneuver he briefly explained afterward in response to some expression from Hogg of surprise and annoyance. On a former visit to London, some old man, it seems, had told him his distress, which ten pounds alone were able to relieve. Shelley's sympathies were instantly aroused. He gave him what he had, and then for the balance he pawned a beautiful solar microscope upon which he had set great value. This, as he chanced to pass this same way, it suddenly occurred to him to redeem. Although in the latter years of his life his annual income from his inheritance was about one thousand pounds, and his habits were as simple as a hermit's, he rarely was with funds, so unceasing were his charities. He made no parade of his gifts. They were bestowed with the utmost delicacy, and those blessed by his bounty were never afterward embarrassed by any inconsiderate allusion.

But Shelley, even in this his best estate, was pitifully weak. He lacked discretion, being touched by every tale of trouble, without dreaming that shiftless vagabonds often drive sharp bargains in tears and sighs and tattered clothes, hawking pathos about the street as they would tinware or calico. He also sadly lacked system in his giving, and thus greatly crippled his power to relieve the distress whose wide prevalence so profoundly grieved him. Though he thus betrayed an utter ignorance of human nature, and weakly followed the blind promptings of his heart, yet the very fact that he believed in every one's integrity proved his own; and however much we may laugh at his childish credulity, at his impetuous and ill-directed efforts, his self-forgetfulness commands our admiration. As I have already remarked, he was essentially a dream-creature; his kingdom was cloud-land. But in his wildest aberrations generous impulses never quit him company; they followed him like troops of angels.

He was of strong personal attachments. The multitude, it is true, were so repelled by his beliefs they studiously avoided him; and such were his sensitiveness and self-distrust, he instinctively shrank from general society, and being naturally of a contemplative habit he early became enamored with solitude. Consequently very few ever knew him personally, but those few seemed unable to allude to the magnetism of his presence except in the words of hero-worship. He had a fertile fancy, a fearless utterance, a contagious enthusiasm. He was open-handed to a fault. The resources of his genius and of his scholarship were also at their disposal, for he not only witnessed their increasing popularity in the world of letters without that ugly envy of authors, but freely furnished them facts and even loaned them the wings of his imagination. Byron was a superficial scholar, and drew largely on the fruits of Shelley's study, his retentive memory, his bold, free thought; Shelley parting with his mental wealth to his rival without stint, simply for the asking. The poetry Byron wrote while in Switzerland is more especially permeated with his refining and elevating influence. In a letter to Moore Byron writes: "Shelley, who is another bugbear to you and the world, is to my knowledge the least selfish and the mildest of men; a man who has made more sacrifices to his fortune and his feelings than any of whom I have ever heard." He expressed the same sentiments in conversation with Lady Blessington shortly after Shelley's

death. Such was the private judgment of one who, out of servile deference to the world's opinion, wholly ignored his acquaintance with him when writing for the public eye, in such low estimation was Shelley held by the mass of his countrymen. While in Italy Shelley placed himself, for the sake of his friend, on one occasion, in most imminent peril, receiving in the affray a saber stroke on the head and a fall from his horse. His gallantry astonished Byron, for, as he remarked, it was a mystery to him upon what principle any man could be induced to prefer the life of another to his own. Once a storm surprised them when out sailing, and became so violent they abandoned all hope of their little boat ever reaching the shore in safety. Byron in the emergency proposed to Shelley, who was no swimmer, that if he would cling to an oar he would try and pull him in; but without a moment's hesitation he refused, though he thus apparently let go his only chance of rescue. He imagined Byron would have a sufficiently difficult task to save himself. Such self-forgetfulness has appeared in human history only at the rarest intervals.

The fact that Byron was never a willing witness to any one's merits, friendship being, as he himself confessed, a propensity in which his genius was very limited, warrants us in attaching to any praise that may have fallen from his lips or pen, or have been unconsciously expressed in his life, a peculiar emphasis.

The attachment for each other of Shelley and Leigh Hunt was of the closest, and lasted till death. Hunt says that for his part he never could mention the poet's name without a transport of love and gratitude. Horace Smith, a prosperous stock-broker, one of the authors of "Rejected Addresses," was warmly attached to him. Although they were at direct issue on questions of religion and social order, and Shelley was the object of obloquy everywhere, Smith always reposed in him the utmost confidence, honoring without security every draft made upon him, feeling certain that he had some benevolent scheme in mind, and would not for his life knowingly misapply a single farthing. Shelley was, perhaps, drawn into closer intimacy with Keats than with any other of his acquaintances; and in some of the incidents of their intercourse his capacity for pure, fervent, self-sacrificing attachment conspicuously appears. They agreed during a set six months to write competing poems. "Endymion" and "The Revolt of Islam" were the result of this

friendly rivalry. Keats's effort on its issue from the press was most mercilessly criticised in the "Quarterly Review." Shelley with great magnanimity wrote to Southey to interfere in his favor. But the reply he received, instead of speaking in generous compliment of Keats, fell upon himself in cruel accusation. The treachery came unawares. It stung him like an adder. The fair fame of England's poet-laureate from that day shines with a diminished lustre. Shelley was seemingly as interested in Keats's prosperity as in his own. The pleasure he derived from the excellencies of "The Eve of St. Agnes" and "Hyperion" was never embittered by suggestions of envy. It was upon his open page his eyes last rested. From "Adonais," that consummate flower of his genius, there exhales a fragrance of affection that will never die out of English literature. Love claims her own. Now at last, after life's fitful fever, they lie peacefully sleeping side by side.

By far the major part of his writings was conceived in the true spirit of philanthropy. His schemes were, many of them, quixotic, it is true; some were absolutely pernicious; but they everywhere bear evidences of a most tender solicitude for the welfare of suffering and wronged men. In "The Revolt of Islam" his verse breaks out in hot indignation against the oppressor; in the drama of "Hellas" and in the odes to Naples and to Liberty there breathes through exquisite choral melodies an enthusiasm of gladness because of the oppressor's overthrow, such as could have come only from the heart of one who loved much.

We have here a picture of seemingly the most kind-hearted and considerate of men. Yet it appears it was possible for this man to abandon wife and babe, and so live afterward as to call down upon him the curses of nearly all England. I have shown how he could not bear the sight or thought of sorrow. He emptied his purse, he took his shoes from his feet, the bread from his mouth, sacrificed ease, faced death, for the welfare often of utter strangers, so profoundly the presence of grief and pain moved him. And these acts were performed not merely once or twice, but they were the daily habit of his life; and so deeply seated, so spontaneous, so irresistible were these impulses of sympathy, even his belief that he was misinterpreted and maligned, the fact that he had become a social outcast, seemed powerless to check for an instant his purposes of love. We have found his personal attachments to be intense, to

be characterized by the noblest self-sacrifices, and to continue constant until death. Still this strange being, without any outward sign of emotion, sundered the most sacred and the tenderest of ties. Months passed. He never inquired after either the wife or child whom he had abandoned with such apparent nonchalance. He seemed to have forgotten them. A new voice soon after thrilled him, and he precipitately formed a new alliance without sanction of law. At last Harriet, made desperate, as most thought, by care and homesickness, threw herself into the river, and Shelley woke to find himself arraigned at the bar of public opinion to answer the charges of cowardice, of cold, cruelty, and of an impure life, which from every quarter were in hot indignation preferred against him.

Is it possible to acquit Shelley of blame in this matter? Assuredly not. This is neither hoped for nor sought. My aim is simply to clear his life of the appearance of inconsistency, by placing in their proper light certain mitigating circumstances, and to call attention to certain constitutional peculiarities and defects usually overlooked. They are briefly these. He was a mere boy when he married Harriet, not yet out of his teens. She told him she was in trouble. That is about all he knew about her. His quick fancy fired. He must relieve her, whatever the hazard. He did exactly what an intensely sympathetic, imaginative, impractical, inexperienced boy would do. It is impossible to overstate the rashness of the act, for he had neither money, profession nor friends. His father had already driven him out of doors, made mad by his obstinate atheism, and now this misalliance, so humbling to paternal pride, rendered reconciliation hopeless. These two children, for they were nothing more, wandered aimlessly from place to place. Neither of them possessed any faculty for self-help; neither of them, the least conception of economy; and so it was not long before absolute starvation stared them full in the face. Such desperate straits very naturally tended to cool their ardor, and force into painful prominence the fact, for fact it was, that there existed between them absolutely no community either of tastes or temperament. None will dispute their utter unfitness for a life-intimacy with each other. Separation was resolved upon. The agreement was mutual, and entered into in apparent good humor. He left her with her babe in her arms at the door of her old home, where he knew there was an abundance of material comforts. I fail to see the necessity of imputing to Shelley

any unkind intent. In making up our judgment we should keep in mind his utter dejection, his wounded pride, his crushing sense of helplessness. We should remember that he was essentially a dream-creature, hopelessly unfit to push his way in the world; that he possessed one of the most vivid imaginations ever entrusted to mortals, accompanied by such acute sensibility that there swept through his brain tempests of thought of which most men know nothing. We should recollect that while his benevolence was cosmopolitan, his congeniality was limited in the extreme. His mental make being so peculiar, his personal likes and dislikes so positive and powerful, the wonder is he ever succeeded at all in consorting with his fellows. To have been forced into daily intimacy with one with whom he had little or nothing in common would have been for him the keenest torture. Those outside influences that hold together so many family circles, those prudential reasons, questions of convenience, solicitude for children or dread of public scandal, were with him as weak as cobwebs. He was of too intense a temperament to be able to take any such middle course. Marriage to him was a matter of affection, not of finance. To have continued to feign what he had ceased to feel would have been a living lie, a thing he loathed. I find it stated by one of his biographers that after he had commenced living with Mary he consulted with his lawyer in all seriousness whether it would not be feasible for Harriet and her children to make their home with them. While in this he showed his laughable ignorance of human nature, his remarkable deficiency in the plainest common sense, he also showed that he was still friendly and felt solicitous that they should fare well; he showed that he was totally unconscious that he had done them an irreparable injury, that between them and him there had been an impassable gulf fixed. This single circumstance throws a flood of light upon this whole affair.

Was Harriet's suicide the result of Shelley's abandonment and proof of his cruelty? There are some strange incidents in her history which seem to controvert this. Even as far back as her school days, when kindly used, she meditated self-murder; and even after that the thought came back to her at frequent intervals. Many an hour at night she lay awake-devising plans to effect it, although in the morning her attention would be diverted, and she would quietly go about her accustomed duties. She was in the habit of conversing

on this theme before entire strangers, with nothing extraordinary in either tone or manner, making it the subject of extended table-talks and astonishing the guests by her coolness. Did she not dwell on this thought until the thought mastered her? Would she not have destroyed herself sooner or later had there been no separation? Her first child, Ianthe, was at one time affected with a tumor. A surgeon was summoned. Few would have courted the opportunity of watching him at his work. Harriet, though plainly told by him that the sight would be exceedingly painful, and that she could possibly do no good, yet, young mother though she was, she not only persisted in remaining, but narrowly watched every detail in this terrible performance, without the least symptom of sympathy, to the utter amazement of those present. This incident, revealing as it does the sharp contrast between Harriet and Shelley, should have no little weight in determining the causes of the separation and subsequent suicide. Harriet's sister, Eliza, who dogged the footsteps of the young couple like a thing of evil, persistently reminding Harriet of her diseased nerves and nursing her already too plain predilection, and gradually exciting toward herself Shelley's deep aversion, probably played no small part in this tragedy. Shelley once wrote in a letter: "I certainly hate Eliza with all my soul. It is a sight which awakens an inexpressible sensation of disgust and horror to see her caress my poor little Ianthe, in whom I may hereafter find the consolation of sympathy. I sometimes feel faint with the fatigue of checking the overflowings of my unbounded abhorrence for this miserable wretch. But she is no more than a blind and loathsome worm that cannot see to sting." The exact cause of this aversion is unknown. It was excessive, as were all his feelings, as indeed was his former deference to this same lady. Harriet was held by her under some fatal fascination; and Shelley, in his desperation to rid himself of the loathed presence, may have determined on what he would have gladly averted.

He evidently purposed to assume the care of his children again should his means ever warrant it, and to properly educate them. And when he attempted this and was denied the privilege by decree in Chancery on the ground of his having written *Queen Mab*, for no other charge was sustained against him, grief and rage swept through him like a whirlwind. In his "Lines to the Lord Chancellor" we gain some conception of this terrible tempest. The poem is no piece of

ambitious rhetoric prepared for the press. He never made allusion to it, threw it into his limbo of rejected manuscripts, and doubtless thought it destroyed. It is idle to contend that the heart that broke out in this awful curse ever looked upon his children coldly. Surely from nothing but outraged paternal tenderness could have come this wild maniac shriek. That he seldom, if ever, alluded to his children is no proof of indifference; for it was among the eccentricities of this strange being to speak with a mysterious air, in hushed whispers, on subjects which to most people seemed commonplace. Some say that when the news of Harriet's fate reached him he was for three days beside himself; but reason returned, and in time there came upon his thoughts a deep peace. Such an announcement would naturally have fallen upon one of such delicate nerves with dangerous force, overwhelming him for the time with self-accusation. Had he been capable of the calculating, cold cruelty with which he was charged, his feelings never would have been sufficiently intense to have thus mastered him; and had he not found when he came to himself that he had over-estimated for the instant his real guilt, that he had been less a designing criminal than a weak, blind creature of circumstance, overtaken in a fault at a time when hope had well nigh died within him, erring less in heart than head, he never afterward could have attained that abiding peace.

He felt himself completely absolved from his first marriage, though he was still undivorced, for he honestly believed that law-makers in this matter meddled with what did not rightly concern them. He saw Mary, and on first sight was very naturally carried by storm. In his subsequent action we see the same thoughtless impetuosity which marks the acts of his whole life. It so chanced he found a companion perfectly suited to his peculiar temperament, one who with him could range with ease through the widest fields of fancy, thoroughly understanding and appreciating his marvelous gifts. In the presence of the constancy of his affection for Mary, the acknowledged purity and quiet contentment of their wedded life, it is impossible for me not to acquit Shelley of those grave charges preferred against him. That he was impulsive, impractical, sensitive, a magnifier of trifles, the slave of foolish whims, the champion of crude and mischievous notions about the functions of government and the demands of social life; that he betrayed a pitiable ignorance of human nature, and a pitiable lack of power to adapt himself

to the ever-changing circumstances of human life, I stand ready to grant. But that to these and kindred defects, the morbid outgrowths of the very traits of character to which I have directed attention, called out in an extraordinary juncture of affairs, and to these alone, can be traced the causes of that abandonment of family which has brought him under such condemnation, I stand equally read to maintain.

The fifth and last phase of Shelley's character to which I direct attention is his large gift of hope. Of him, thus viewed, we have the true type in the Statue of Mercury, which, poised far in air above the site of the old French Bastile, crowns the column of July. In marked contrast to Egypt's titan Sphinx, sunk neck-deep in sand, its placid stone face fronting the dead centuries, we have here a winged boy at the point of taking flight, deigning to touch the pedestal on which he stands with but the tips of his lifted feet.

We see in this life-habit of hope a necessary resultant of those other powerful leanings of Shelley's mind of which I have already attempted an analysis. The latest thoughts of this dreamer still glisten with dew. His faculties never lost their morning freshness. To the very last he looked out on life with the eager expectation of childhood. The texture of his mind was too ethereal to adequately grasp the prosaic, practical, breathing world about him. In his passionate longings to overthrow its tyrannies we have seen him in full confidence put out his little baby hands to pluck down the Gibaltars of social caste and bigotry, of old-time prejudice and self-seeking, behind which they lay entrenched. As he was a natural recluse, lacking the experience of a man of affairs or any inclination to mingle with the multitude and familiarize himself with their methods of thought and the groundwork of their character,—a born philanthropist stung into morbid sympathy with the wretchedness of that multitude by his own personal wrongs,—a radical, a revolutionist by the very temper of his mind,—no wonder his brain became the general rendezvous of every crazed theory of reform. His imagination, noted alike for its abstractness and its intensity, gave them the definiteness and semblance of life, even transfigured them by its witchcraft into conquering bands of angels. Although the opposition he encountered surprised him like the sudden uncovering of masked batteries, yet he never was conscious of danger, never once questioned the soundness of his views or distrusted their ultimate

triumph. We have seen him under such influences carried away by the impulse of an outraged individualism into blind frenzy. We have seen him too in happier moods, at times when thrones tottered and light broke fitfully along the world,—then the enthusiasm of his mental frames was but a step removed from inspiration. His spirit seemed to rend the veil of the future and catch a glimpse of the fulness and splendor that are in waiting. His two-paged pamphlet, that wild freak of his college days, he looked upon as the advance guard of an army of arguments, destined under his leadership to overturn unfit faiths everywhere. No sooner had Oxford banished him in her paroxysm of panic than the plucky boy set about the recasting and completion of *Queen Mab*, and we find even this chaos of destructive beliefs, this embodiment of bold blasphemy, bathed in the same golden atmosphere of hope. He thought a millennium near, even at the door. Irish exiles found no difficulty in enlisting him in their madcap enterprises. The Greek patriots went from his presence to dream new dreams of glory. A burdened people here and there grew restive, and he burst out at once into those rich choral melodies that ring through the drama of "*Hellas*" and the odes to *Naples* and to *Liberty*. There is, it is true, in his "*Alastor*" and in one or two of his minor poems, a spirit of dejection; but these we must remember were written at times of extreme bodily weakness and under presentiments of death. In "*Prometheus Unbound*" the true character of Shelley, his strong and weak points as both man and author, the peculiarity of his beliefs, the aspirations that stirred within him, and the grand hopes in a world's reclaim to which he through life so fondly clung, received, perhaps, their most perfect expression; and this production consequently, while *Adonais* remains the finished masterpiece, must take precedence of all the other writings of the poet as the fullest representative of his genius.

This is the poem over whose pages the enthusiasm of Hope sheds an especial splendor. There is an oriental magnificence, a fervency, an exultant freedom in its imagery, ushering us into the privileged presence-chamber of the Spirit of Gladness. There seems to be entertained no more doubt about the happy issue of the battle of passions and principles still fiercely waging on the wide field of the world than if it were already an accomplished fact. Indeed we have here elaborated into a lyrical drama the millennial day-dreams of the very Prince of Visionists.

The argument of the poem is this. Love is the motive power of the universe. Goodness is inherent in men, and capable of self development; while evil is a usurper, destined to irremediable overthrow. In other words, the human race both can and will reform by the might of its own free choice. For the drapery of this thought Shelley has remodeled the old Greek myth that forms the plot of one of the lost tragedies of Æschylus. The throne of Saturn, personating ignorant innocence, is usurped by Jupiter, the spirit of evil, who, jealous of Prometheus, the humanity in man, and wishing to extort from him a revelation of the danger that threatens his empire, chains him to a rock and delegates fell furies to feed upon his ever-renewed heart. But the tyrant finds no torture that can tame the Titan. The secret is kept; the fatal step taken. Demogorgon, the Spirit of Oblivion, Jove's own offspring, becomes his destroyer, and Prometheus, freed by Hercules, re-establishes with nature his old companionship.

Prometheus, at the opening of the drama, speaks of his slow dragging centuries of pain, their moments divided by keen pangs till they seem years. Though torture and solitude and scorn are his empire, he glories in it as a conqueror, believing it more enviable than that of his tormentor. Though each hour brings pain he welcomes it, for one among them is to drag forth the cruel king to kiss his feet, which then would not deign to trample the prostrate slave. The Titan, confident of his approaching triumph, pronounces a pity for the fallen god, not in malevolent exultation as at first, before sorrow had lifted him into nobler thought. He asks his former curse recalled, and Earth forces the phantasm of the very foe against whom it was first pronounced, to repeat it. It is filled with proud defiance, bidding the torturer do his worst. While expressing appreciation of the woes in store, presenting a frightful picture of the agony within the gift of omnipotent hate, he yet invokes a sufferer's curse to clasp his tormentor like remorse, till his infinity shall be a robe of envenomed agony, a crown of burning gold. He waits to welcome the hour when the mask shall be torn from the face of the tyrant, and after

“Fruitless crime

Scorn track his lagging fall through boundless space and time.”

These words, thus again pronounced, Prometheus regrets, calls them quick and vain, remarks that grief was blind, that he wished no living thing to suffer pain. Earth, fearing from this expression

of pity that the Titan was at last vanquished, is reassured by Ione, who is confident it is but a passing spasm. Then Mercury arrives with a band of furies. Before they are let loose the messenger expostulates with the rebel, endeavors to convince him of the hopelessness of his rebellion, and to induce him to divulge the secret and thus secure his release. "Let others flatter crime," replies the captive, "I wait the retributive hour." The hell-hounds clamor for their victim. He warns Mercury of the danger of delay. Still Mercury, sympathizing with the grand old sufferer, says pleadingly:

"Once more answer me,
Thou knowest not the period of Jove's power?"

The reply comes back,

"I know but this, that it must come."

Mercury bids him plunge into eternity and see the centuries of approaching agony; he pictures his bliss among the gods if he will but yield; and when at his continued refusal he expresses wonder and pity, there comes from the firm lips of the Titan,

"Pity the self-despising slaves of Heaven,
Not me How vain is talk—
Call up the fiends."

They come. Such pictures of mental torture as here follow, have few, if any parallels in literature. The ordeal ended, the air is filled with light and music from a chorus of spirits, bright essences of human thought, indefinable hopes, aspirations after better things, self-forgetting love, dreams of poets, all the tokens of innate nobleness in men, harbingers of brighter days. They assure him that though Ruin is now Love's shadow, its doom is sealed.

In the opening of the second act, Panthea and Ione, types of faith and hope, are visited with dreams that body forth this same bright future. In succeeding scenes they go down with Asia to the cave of Demogorgon and enquire after the origin of evil, and we encounter in the reply some of those wild vagaries, so common to the poet, betraying most lamentable weakness. At the close of the conversation Asia demands of Demogorgon when Prometheus shall be freed and right again reign on the earth; and in this reply impersonating the hours, we feel a most consummate artist is touching the canvass into life. The spirits ride by in chariots drawn by winged steeds trampling the dim winds:

“Some look behind as fiends pursued them there,
 Others with burning eyes lean forth and drink
 With eager lips the wind of their own speed
 As if the thing they loved fled on before,
 And now, even now, they clasped it. Their bright locks
 Stream like a comet’s flashing hair; they all
 Sweep onward.”

Of these one bears a dreadful countenance—a ghastly charioteer, the shadow of a destiny whose accompanying darkness is soon to wrap in lasting night heaven’s kingless throne. As this terrible darkness floats up and ascends the car, the coursers fly in terror, trampling out the stars. Another chariot stays near the verge of the horizon. It is an ivory shell inlaid with fire. A young spirit guides it. In his eyes is the light of hope. He says, in announcing his coming:

“My coursers are fed with the lightning,
 They drink of the whirlwind’s stream.

* * * * *

I desire; and their speed makes night kindle:
 I fear; they outstrip the typhoon:
 Ere the clouds piled on Atlas can dwindle
 We encircle the Earth and the Moon.

* * * * *

On the brink of the night and the morning
 My coursers are wont to respire,
 But the Earth has just whispered a warning
 That their feet must be swifter than fire:
 They shall drink the hot speed of desire.”

After the spirits wing by, Asia’s—nature’s—future is foretold in most delicate and impressive imagery.

In the third act Demogorgon, with tranquil might, remands Jove down to darkness. Hercules strikes the fetters from the limbs of the Titan, the exiled Asia returns to the side of her lover, and the Spirit of the Hour, as he sweeps through the air in his chariot, heralds the dawn of the new era. The concluding act is a series of triumphal chants, in whose wraith-like fancies we witness one of the most ethereal-minded of mortals in a state of wild transport. An unwonted glory lights his thought, for it is here, where Hope by her enchantments seemingly draws aside for him the hiding curtains, it may be safely said his powers of creation culminate.

This drama, while unquestionably a work of art, is also, and with

even greater emphasis, a confession of faith and a revelation of temperament. With it simply as such am I at present concerned. And now let me ask what is there more natural than that this fearless devotee to truth, this dream-bewildered lover of men, this tameless Arab-child, thus firmly convinced that the world's sufferings were due to whatever of its customs and laws restrained in the least the utmost personal freedom, and that so soon as these impediments were removed the divinity in man would be self-asserting and reign without a rival, that the present social system was doomed to certain and swift overthrow; what more natural than that he, led by some fatal hallucination to regard himself as the great apostle of this new, strange Gospel of Peace, should really from right motives have openly violated in his life the common conscience, and in his published works have become the uncompromising advocate of principles which had they prevailed would have hopelessly debauched it?

I have now completed my analysis of this remarkably exceptional character. It has been my purpose simply to show how Shelley, surcharged as he was with imagination, individualism, enthusiasm, love and hope, while exhibiting in his life and writings many apparently vital contradictions, actually maintained in the main drift of both his thoughts and acts as strict a self-consistency as comports with usual human frailty. Precisely how far he was accountable for his morbid mental moods, his dangerous doctrines and still more dangerous modes of life, or how far he was the helpless creature of organism and circumstance, I leave an open question, preferring that the responsibility of its decision shall rest with that higher tribunal to which he has gone, "The Court of Final Appeal."

WM. W. KINSLEY.

EUROPEAN AND AMERICAN FORESTRY. II.

THE love of the woods is one of those æsthetic impulses that have never yet been accounted for, and man's mysterious feelings awakened by a communion with the silence of the forest have never been laid open to the understanding by any analytical process of his own philosophy. The charm possessed by the primeval forest is most profound; it seems to spring from that inexplicable attraction

between man and nature that ever remains problematical, and, as a psychological question, needs solution. To us Americans the primeval forest is a thing of course, and its quiet solemnity is identified with all our national home associations. Our wild, shady haunts have never been formed by our own arrangement, but are the Creator's gift; we have never planted them nor watched their growth; in many localities they stand as the floral result of three or four centuries. Indeed, the formation of the woods is to us an entire novelty; and surrounded by them and enjoying their protecting influences since we were born, we form no conception of that new existence which is to follow the present, when our woodlands shall flourish around and about us, planted and reared by our own hands.

To the European the primeval forest stands in quite a different light. Having, as a general thing, never seen it, he feels a veneration for it unknown to us; and on landing on our shores and beholding its luxuriant foliage, a careless luxuriance and novel to him, he gives ready expression to his joyous surprise. For the first time he finds nature in her original manifestations. This and much more that could be said in favor of the woods is the representation of the subject viewed merely as a mental sustenance—a refuge for poetry and material for art. We design more particularly in these papers to point out the necessity of protecting and perpetuating them for great national purposes, and for the benefit of futurity.

It is only within the last decade that a few writers have come forward and sounded the first alarm of a speedy decadence of the American forest, representing in forcible tones the appalling consequences of such an event. They have given confirmation to the theory that a large portion of our material prosperity is derived from the existence, regulation and protection of forest territory, by referring to the experiences of Europe, and availing themselves of the history of sylviculture in those antiquated lands of a venerated civilization.

In furnishing statements in regard to the positive diminution of this form of our early vegetation, no certain data are within reach, many of them being purely conjectural, while others are inferential, drawn from geographical knowledge of territorial surface, and the terrestrial elevations that characterize a large part of the United States. For the mountain is ever identified with forest shades, and

with the exception of that long range that separates us from California, the American mountain is everywhere shielded from the sun by an umbrageous and luxuriant vegetation.

In 1870, the Federal Government made an effort to ascertain the relative amount of woodland and cleared surface then existing, in farms and lands in occupancy, exclusive of wild and unoccupied territory, the probable wooded contents of which being deduced from the known surveys of square miles and acres.

Large masses of figures have been employed to denote the consumption of wood and diminution of our sylvan possessions. A thousand millions is found inadequate for the purpose, and we find a hundred thousand millions a not unusual designation in furnishing a conception of demand, supply and loss of timber.

Two hundred and fifty thousand millions of feet, in round numbers, is supposed to be the amount of soft timber, such as pine and hemlock, that is now standing in the forests of the United States and Canada.¹

In this estimate the oak, hickory, birch, maple and other hard woods are not included. The states most conspicuous for this vast supply of building timber, are Maine, New York, Michigan, Pennsylvania, Minnesota and Wisconsin. In the south, Virginia, North and South Carolina, Georgia, Florida, Alabama, Mississippi and Texas are rich in the soft woods, such as pine, poplar, cypress and juniper, and the durable oaks, including the valuable live oak. Oregon, together with the territories, Washington, Montana and Alaska, comprising, according to the report of 1870, 155 millions of acres, abound in timber, and the supply from that section of our country will come to our relief when the middle and western states are exhausted.²

¹ See report from the committee on Public Lands and paper of Franklin B. Hough, March 17, 1874. The *Chicago Times* gives a much more liberal estimate, as it conjectures our pine timber alone, exclusive of Canada, to exceed 320,000 millions of feet.

² The Secretary of the Navy has repeatedly called the attention of Congress to the rapid disappearance of the live oak. This invaluable timber has not only been extensively employed for our own Navy, but large demands are made on us for exportation. No wood we can propagate will ever supersede its use, as it has no equivalent for ship building, and when combined with iron, forms the most durable vessels in the world. The extinction of the live oak, therefore, would prove a serious national calamity.

North Carolina presents some of the most remarkable contrasts of the arboreal creation. As the surface of the land rises from the ocean to an elevation of 6,000 feet, in the Appalachian range, vegetation changes its character in accordance with the laws of nature, and the flora of this state, as well as South Carolina, produces the palmetto and pine as soil and climate change from the tropical to the frigid.

Since the able report was made by Gen. Hazen, and confirmed by the testimony of officers of the army as well as those of the topographical corps of Engineers, we have been made acquainted with the important fact that a very large portion of our western domain is entirely bare of forest—barren, arid and unfit for culture. This extensive treeless region occupies the whole space lying between the 100th meridian and the Sierra Nevada mountains, having Mexico for its southern, and the British Possessions for its northern boundary. In this cheerless country both cause and effect are aptly illustrated. It possesses no trees, because there is no moisture to sustain them; while, on the other hand, the moisture imbibed by the earth cannot be retained, because there is neither foliage of tree or shrub to shield it from the burning rays of the sun, and no protection for the springs that would naturally form near the surface. Although the Sierra Nevada mountain region is characterized by this scanty protection of foliage, amounting in some portions to entire destitution, we find all the mountainous country east of the Mississippi well wooded, embracing a prolific growth of every species of timber that can be made applicable for fuel, building, and all the useful arts. Although all the wood on the mountains is utilized when accessible, the inaccessibility of much of it has been the means of saving it from entire destruction and the heedless waste that would otherwise have been its fate.

In casting our eyes over the map of the Western States, and surveying all those chains of mountains that interlace one another from Canada to Texas, we may form some conception of the vast treasures we yet possess in the shape of timber; and in contemplating this abundance, the more superficial class of thinkers, who dispense with all statistics, deride the idea that the nation is prematurely wasting its substance, and the inheritance of the forest is passing away. We have said that huge numbers are employed to indicate the rapid consumption of the various species of American wood. Of these

quantities the most prominent item of exhaustion is lumber, the production and consumption of which in 1870 amounted to 20,000 million feet.³ The exportation of wood, in its various stages of preparation for manufacture, amounted in value, in 1872, to upwards of \$12,000,000, and in 1873, to nearly \$17,000,000. The next and perhaps most considerable item, is that of rails and fencing. It has been vaguely surmised that the fences and inclosures of the United States cost a sum bordering on \$2,000,000,000; the annual repairs falling little short of \$100,000,000. These sums are inferential from the ascertained number of acres constituting farms, reported by the census of 1870. The 70,000 miles of railroads absorb an immense quantity of young timber required for the building of the roads; and as a renewal of the ties is necessary every five to seven years, the drain upon the woods for this purpose is easily imagined.

The amount devoted to the purposes of fuel is equally striking, the supposition being, for we possess no concise statistics from census reports, that three-fourths of the people use wood for fuel, and that the yearly consumption and waste by conflagration of wood in this form exceeds one hundred millions of cords. The present annual production of charcoal pig metal is 570,000 tons. In the process of reducing the ore and again converting the raw to refined iron, nearly 2,000,000 cords of wood are consumed; and had the same process continued up to the present time, we can imagine what a vast consumption of forest timber would have resulted from it. Most of the old iron works, it is true, had their reservations of timber land, which by a regular renewal of a forty or fifty years' growth sufficed to supply a small furnace perpetually with its fuel. This was and is yet regarded as the means of furnishing an inexhaustible supply of fuel for an iron works of diminutive yield. Considering the extensive scale of production that has superseded the old process, no woodland property in the country would be adequate to keep a single one of our large works in operation. No event in the history of our material progress in this country, therefore, could give more cause for congratulation than the discovery of the application of mineral coal to the reduction of our ores to iron, which enables a single iron works to discharge from its six to eight stacks 100,000 tons of pig

³ Report of Commissioner on Public Lands, 1874.

metal annually. To produce the same amount of charcoal iron 300,000 cords of wood would be required, and 7,500 acres of land would be divested of all its trees. Among other assertions in regard to the annual consumption of forest material, we find one that rests on strong probability,⁴ viz, that the decrease of the forest per year amounts to seven millions of acres.

Assuming the census reports of 1870 to approximate to the truth, and the total extent of woodland comprised in our 48 States and Territories to amount to 562,000,000 acres, the whole of this species of national wealth would be extinguished in the short space of 80 years. Nature, it is true, would in that time restore what she had yielded up to man; but even aided by her most prolific resources, reforestation could not keep pace with the duplication of our population every thirty years. Although the agricultural report of 1872 on this question is somewhat qualified by conjecture, yet we think some cogent reasoning can be drawn from the estimate it gives us of the percentage of woodland of all the States and territories up to the time the report was made, thus:

STATES.

Maine.....	46.9	Massachusetts.....	29.2
New Hampshire.....	37.2	Connecticut.....	21.2
Vermont.....	36.5	Rhode Island.....	24.2
New York.....	27.6	Delaware.....	29.2
New Jersey.....	28.1	Maryland.....	38.4
Pennsylvania.....	38.9	Virginia.....	46.8
North Carolina.....	60.3	Florida.....	50.6
South Carolina.....	56.2	Alabama.....	58.1
Georgia.....	56.6	Mississippi.....	60.2
Louisiana.....	59.1	Tennessee.....	53.3
Texas.....	26.7	W. Virginia.....	50.6
Arkansas.....	50.3	Kentucky.....	45.4
Ohio.....	28.4	Illinois.....	16.9
Michigan.....	35.3	Wisconsin.....	20.9
Indiana.....	34.8	Minnesota.....	17.1
Iowa.....	14.1	Nebraska.....	5.2
Missouri.....	37.4	California.....	7.9
Kansas.....	5.6	Oregon.....	25.2
Nevada.....	5.0		

⁴Jackson Pilot.

TERRITORIES.

Colorado.....	9.9	Washington	33.1
Utah.....	9.9	Dakota	3.0
New Mexico.....	6.0	Montana.....	15.9
Idaho.....	14.9	Indian	7.9
Arizona.....	5.9	Alaska	30.0
Wyoming	7.9		

The above table leaves an average of 25 per cent. for all the States and Territories, so that the total amount of forest in our possession would, according to the estimate made in 1872, average 25 per cent. of all our territory.

The percentage of forest territory in the different European States stand thus⁵:

Norway.....	66	Belgium.....	18½
Sweden	60	France	16¾
European Russia.....	30.90	Switzerland	15
Germany	26½	Denmark	5½
⁶ Sardinia	12¼	Great Britain.....	5
Holland.....	7.1	Portugal	4½
Spain.....	5½	or according to some writers, 9.	

By a comparison of the above several countries, with the whole areas of cultivated and uncleared lands in our own States, we find that at the present time, with the exception of Norway, Sweden and Russia, the greater portion of Europe is far behind us in woodland wealth. But if this reflection is made at this comparatively primitive epoch, when our vast territory contains but forty millions of people, what must the exhibit be in a century hence, with a population eight times our present number? Much of our mountain timber is lost by yearly conflagrations, originating, as we have already shown in European forestry, in the desire to obtain pasture for mountain herds. The consumption of bark is very large, and in the more inaccessible parts the trees, after being felled and divested of bark, are left to decay. The wanton destruction of the American forest is a subject to which legislation, whatever little advances it may have made in that direction, has never seriously directed its attention; and it promises

⁵This statement is from the Agricultural Report of 1872, and adopted from a German writer, Reutzsch, who gives 30.90, and P. N. Werekha 40.0 to Russia.

⁶All Italy has 85 per cent. of productive land, of which 22 per cent is woodland, and 5 per cent. olive and chestnut forest.

to be a question which may come into harsh conflict with the American's idea of self-government. In an ideal sense, nothing that subserves his general well-being belongs to individual man, but falls within the parental jurisdiction of the State. The ways and modes of life that were once tinctured with aboriginal freedom are thrown aside, and our people are beginning to acquiesce in the decrees of a higher species of legislation than we have been accustomed to. The birds have been for some time under the tutelage of State authority: the game of the forest can only be pursued by the hunter in limited and appropriate seasons. Great conservative regulations have been instituted for augmenting our stock of fish, and pisciculture is growing into a science. But little has hitherto been done to save the forest from premature exhaustion, and all movements in this direction will prove extremely dilatory unless the attention of Congress as well as State legislatures is excited by scientific and agricultural associations to extend their arm of protection over them. New conditions of thought on the subject of self-government, a new era of legislation in our republican councils, will have to be inaugurated before the forest receives the guardianship it undoubtedly needs.

In discussing the relative value of the various trees which the generation now living has inherited from the virgin earth, we must place in the highest appreciation those species of oak that possess the most tenacious ligneous properties, and endure the longest against the inroads of time and exposure. Of all the woods we possess, the white oak is unquestionably the most valuable, considered not alone for its various admirable qualities and general applicability to the useful arts of manufacture, but in view of the long process of time through which its reproduction has to pass before its loss can be reinstated. We have many other woods as essential to the various purposes of daily necessity as the white oak; such as the pine, hemlock, chestnut, hickory and ash; but their easy culture and early maturity render them cheap in comparison with the white oak.

There is, we fear, a delusion prevalent as to the possibility of restoring a lost oaken forest. Where the white oak forest has been destroyed, nature requires us to wait at least two or three hundred years before she reinstates the lost grove; and even these two or three long centuries, throughout which numerous generations of man will have lived and died, and awaited in vain to see the valued oak

re-appear, is a moderate calculation for a renewal of this species of tree. Liebig informs us that the oaken forest cannot be restored until a long and tardy period shall have covered the soil with a growth of pine. The earth, during the existence of the oak forest, becomes so thoroughly deprived of potash and other mineral constituents entering into combination with this tree, that a new species of vegetation must intervene between the original oak and the second growth that is to succeed it.

Nature is known to require a resting period for the soil in the production of every species of vegetation; and in the removal of the forest the experience of European dendrologists confirms the fact that several hundred years are indispensable to complete the cycle during which extinct species reappear and fulfill the law of rotation. In Cotta's sketches of forestry it is stated that the traditions of the Thuringian forest point to the phenomenon that in every 300 to 400 years rotations in arboreal growth have taken place there; whereas in France the same rotations have transpired in much less time. Otto Sendtner, Professor of Botany in the University of Munich, remarks on this principle in nature, that when the constituents of any one vegetable or arborescent form have been exhausted, no means for restoration are left but to wait until time shall have effected a sufficient disintegration of the substratum of the soil in order to reinstate the lost elements of the extinct species.⁷ According to this philosophy of the extinction and recovery of trees, we are able to form some weighty conclusions on the subject of the American forest; and it leads us to speculate on the deprivation of coming generations in the loss of all the valuable oaks with which our country teems. The extinction of our oak forest, and more particularly the white oak, will prove a great national calamity, more to be deplored than the exhaustion of all our gold and silver mines; and though the older portion of our cotemporaries may not see the consummation of such an event, our successors will have to console themselves for the loss by the substitution of other hard woods of easy culture and rapid growth.

Since the application of walnut to so many of the arts and useful purposes of life, sad havoc has been committed throughout the walnut groves; and this noble and beautiful tree, distinguished for a wood of the richest variegation the earth produces, is becoming

⁷ These writers, and many others on the same subject, remark that leaf wood deciduous trees) and needle wood (coniferæ) are constantly rotating.

more and more a solitary tenant of the forest. At this early day of our history we hear complaints of the growing scarcity of walnut timber, and the extensive use to which it is applied will soon render it the very rarest of American woods.

As a compensation for this loss, however, the walnut is of easy culture, arrives speedily at maturity, and, although appearing spontaneously in calcareous soils, when planted, grows readily in any other. Even now, the more thoughtful of our landed proprietors have directed some attention to the rearing of walnut trees, invited by the encouraging inducement that they shall be able to see their nurslings expand into vigor and maturity while they live; whereas the white-oak under usual conditions requires from 100 to 150 years to reach its greatest amplitude, the walnut demands but 60 to 80 years to reach the same girth and stature. We find many beautiful specimens of the black walnut of fifty years' growth, in a condition to be felled for mechanical purposes.

In a utilitarian point of view, chestnut is of far greater value than walnut, and undoubtedly ranks next to the white-oak. In respect to poverty of soil which gives it adequate nourishment and allows it to thrive and bear a useful fruit, it stands in near affinity to the needle woods. It springs forth in a liberal growth wherever the oaken forests have become extinguished; but, besides this, it can be planted and grows into full development in forty to sixty years. Hitherto the chestnut has been used for the ruder purposes of fencing and building; but in our suggestions on reforestation we shall endeavor to show how it can be applied as a substitute for pine and other soft woods now in vogue.

Jäger, in his excellent work on forest culture,⁸ holds in high estimation the European larch, (*Pinus Larix* or *Europea*) which is indigenous to the Alpine regions and grows among the Carpathian and Pyrenean mountains. It finds its most congenial existence in the climate of Germany, but it is perfectly at home very far north, and in Russia, where its timber is highly prized, there may be seen immense forests of it. Its hardy existence is sustained 1,000 feet higher above the sea than the fir or pine, and in localities where it meets with a companion in the Stone or Siberian pine, it has been

⁸ Das Forst cultur Wesen nach Theorie und Erfahrung, von I. P. E. L. Jäger. Marburg. 1874.

seen to attain the height of 150 feet by four feet in diameter of stem, and the incredible age of 600 years. Although we cannot eulogize the American larch in the same degree, excellent as its qualities may be, yet we find from the testimony of the writers we have quoted that the European tree, wherever the unrivalled oak shall cease to serve the wants of men, can and will be made its appropriate successor.⁹

Besides being a tree of rapid growth, Jäger ascribes to it all the desirable qualities of strength and endurance we look for in our oaks.

When the restraints of law come into collision with man's jurisdiction over his own property, we are inclined to argue that the forest and water course, conferring equal benefits on land and possessions, health and life, should stand in similar relations; and this question introduces the concluding and not less important branch of forest culture, viz: its results upon the habitable surface of the earth, and its bearing upon human health and protection of domiciliary and agricultural interests.

The forest, thus far, has been viewed as the source from which we derive material for various mechanical agencies, for fuel and every appliance that may subserve the comforts and utilities of life. It appears before us in quite a different light when studied as that great boon to man which promotes his health, his whole physical well-being, adds to his intellectual sustenance, and proves itself the great conservator of his whole rural domain. The chemical influences of the tree in full leaf on the atmosphere that surrounds and affects the habitation of man, by absorbing during the hours of darkness the deleterious element known as carbonic acid gas, and during the day

⁹ An able essay on the *Larix Europea* has been written by Von Berg in the *Tharander Jahrbuch*. Vol. X. 1854.

The American tree growers differ as to the ligneous properties of the European larch. Although its durability for general purposes is admitted, there is much doubt whether it could be substituted for our harder woods represented by the oak, chestnut, hickory or locust. Like most of our American woods, its durable qualities are conditioned upon soil, locality and climate. It is denied altogether that when grown in this country, in a wet and genial soil, the European larch is a tree desirable for its timber, and writers who have made the observation inform us that, to fulfill the ends of a strong and durable wood, the larch should be grown on high, cold and arid land.

emitting that great life preserver, oxygen, seem to be admitted by all who have taken note of this form of vegetation; and, therefore, the planting of the grove around the homestead has always been recommended as a hygienic precaution. In malarious districts fevers have been warded off, or their virulence greatly mitigated, by plantations of the sunflower; and numerous varieties of trees are shown to be useful for the remarkable powers they possess of absorbing noxious atmospheric exhalations, while the favorable tendencies of the summer grove on health have been universally admitted. Climatologists are more at variance in regard to the agency of the forest in effecting great and periodical changes in climate over continents or large extents of country. To this subject they apply that higher grade of physical philosophy which attributes all remarkable phenomena, both in the animal organism and the earth's changes, to cosmic causes—causes entirely beyond our sphere of existence, and more a subject for speculation than positive science. Without pretending, however, that the loss of forest surface over the earth has anything to do with the great climatic revolutions that have marked our earth's career, we know beyond a doubt that all local modifications of temperature are the result of denudation of extensive forests. Whereas the woods imbibe and retain humidity, and temper the winds that pass over them by constant moist exhalations, the arid and desert earth heats the atmosphere, and the air, sirocco-like, is wafted across and beyond the exposed plains.

The manner in which a thunder-gust is arrested in its course by the tree-clad mountain is beautifully exhibited, and one of nature's most striking scenic displays can be witnessed in this wise by all who live within sight of some long mountain range. Dense masses of clouds, as they are propelled by the gale, are suddenly arrested; they cannot resist the humid attraction of the woods beneath them, and the torrent descends among the trees; then the thunder-gust, instead of plunging with its whole force upon the low country, follows the mountain until its worst terrors are spent.

The woods are not less beneficial in generating rain-falls, and distributing moisture over a surface of country, where it thus becomes a salutary gift of nature to man's health and vegetable life, than in the remarkable quality justly attributed to them of absorbing rain and retaining it within the soil.

By this process the forests on the borders of all the streams and

rivers shield the inhabitants from floods and inundations; and when the trees are felled and cultivated fields succeed them, all the disasters we have previously described follow.

The truth of this theory can be substantiated by all who occupy the borders of our streams; and as we have witnessed in the whole tale of European deforestation and its sad results among the peoples of older countries, millions would be given to restore what we have lost in the sacrifice of our densely-shaded mountains and hill-sides that protected parallel streams. Many of the dwellers along our water-courses, however, witness the appalling visitations of freshet and flood, of ebb and drouth of their beautiful streams, without being conscious of the cause that leads to these great physical reverses in the course of nature. To many, the woods along the hill-sides are the objective material for æsthetic dreams, pleasant reveries and pictures of the outward world. All this they certainly are, but when we descend to the economies of life, the rationale of making earth a pleasant dwelling-place, the preservation of the woods beside all our streams becomes a matter of popular study and legislative duty.

In a country like ours, where the government disregarded the care and preservation of the forest from the beginning, the most natural and inevitable result has been its unequal denudation over the surface of our populous States. The pioneers of our civilization made the woods yield to the wants of the farmer; and wherever the soil gave large returns, no system of sylviculture was ever heeded or made a subject of scientific thought. Where a prolific soil was sure to yield fourfold more than the trees that had been suffered to luxuriate upon it, it was deemed poor economy to allow them a longer existence. Their pecuniary product, however, was but a pittance in comparison with their future value and importance as a constituent of one of the grand arrangements of nature for man's preservation.

In the census of 1870 the Federal Government compiled some valuable statistics, showing how irregularly deforestation has taken place in different States, and illustrated its course over Illinois, Pennsylvania and Georgia, in accurately drawn maps, with the percentage of forest and cleared land embraced by each county. These three States, which are given as a specimen of the whole country, show the most remarkable disparity between cleared and wooded area of surface. Illinois passes from 00.0 timber in one county to 50.7 in the adjoining county, and alternates throughout the State from 5 to 50 per cent. of woodland.

Pennsylvania exhibits a great excess of deforestation in the south-eastern portion. The average of Philadelphia county has been reduced to 5.2, Montgomery to 7.8, Bucks to 10.9, Delaware to 10, Lancaster to 12.1, Lehigh to 14.6, Chester to 14.0, Berks, to 15.0. These eight counties include the early settled portion of Pennsylvania, and the forest clearings for the last 200 years have never been sufficiently replanted to restore it to its required proportions of farm and woodland. Beyond the line that marks these eight counties the average increases to 18 and 20 per cent. Further westward, this is succeeded by an average of 40 per cent., and in the wilder portion of the north it rises from 60 to 88 per cent. Thus the wooded area of our State shows the striking contrast of 5 to 88 per cent. Even now, in this old and denuded district of Pennsylvania, reforestation is sadly needed to shield the streams that course through cultivated lands and restore to many a hillside its former umbrageous picture. It is no longer a question of the future, but is urgently needed forthwith. In the calcareous soils and other naturally fertile portions of this State, and the same rule applies to all the States, tillage and pasture will continue to clear their way, and large reservations of forest, unless held by the State, will never remain to us. The mountain chains alone, as we have already observed, on whose rocky declivities farming is impracticable, offer the only safeguard to the perpetuation of a timber supply; and the long Appalachian range will, we hope, remain for an indefinite period clothed in the oaks and pines, and other needle woods of equal value. Over all the fertile portions of Pennsylvania we may anticipate a reduction of forest to the same low average prevailing in the south-eastern settlements. As there is no authority to stay the destructive work of the axe, or system of entail which would obligate our wealthy land-holder to hand down the pride of his richly-wooded domain to his offspring, ancestral oaks become a matter of European tradition and hearsay, and the ardent desire of sudden accumulation by living man makes him regardless of the wants of his descendants. Our republican indifference to the perpetuation of family estates will probably prevent any large proprietor from imitating the Duke of Athol in Scotland, who, together with his predecessors, has planted 10,000 acres of land, which is not only a family inheritance, but also a lucrative investment.

North Carolina, which is emphatically the forest State, presents a

strikingly high average. With the exception of Columbus county (av. 8.1) all the counties run from 21 to 91 per cent. : a large portion are covered with from 60 to 80 per cent. of woods. The forest chart of Georgia also presents an immense wild, the averages of the counties being for the most part from 40 to 80 per cent.

Assuming that 20 per cent. of area would be a sufficient amount of woodland to meet all the requirements of nature, and to guard against flood and drought, and supply the demands of man for all the timber he may require after a more radical reform in its economical application than we now have any conception of shall have taken place, all the States east of the Mississippi, with the exception of Illinois, present at this day a redundancy of woodland.

But west of the Mississippi a totally different scene is presented. Minnesota, Iowa, Kansas, Nebraska, California,¹⁰ Nevada, and all the Territories, except Washington and Alaska, are fearfully deficient in timber, their forest averages running from 3.0 to 17.1 per cent.¹¹

In those States and Territories where the low average prevails, man must necessarily enjoy an imperfect state of existence, of which there will be but little amelioration until art shall have supplied those needful aids to nature which she has not spontaneously given him. Hence the system of tree-planting is in active progress, and is becoming a subject of thought and inquiry every day. The new woods that are propagated, it is true, are of transient durability, but they serve the exigencies of a passing generation.

In all the older States east of the Mississippi, where the averages run from twenty-six to fifty per cent., less than a quarter of a cen-

¹⁰ The report of the State Agricultural Society of California for 1870 to 1871, says that "according to careful estimates one-third of the wood existing in California 22 years ago has been consumed. The requirements of the State for forest products will be at least ten times greater for the next 22 years."

¹¹ In 1866 an estimate was made by the statistician of the government that the ratio of forests to our population, then 35,000,000, would be 18 acres per head. If therefore during the first century of our republic's existence, the forest surface has been reduced to 18 acres per head, we may easily infer what the aspect of our country might be at the opening of another century, when hundreds of millions of people will cover the land, unless some system of forestry is inaugurated in due time. In Europe the ratios present great contrasts: thus, Norway 24.61 per head; Sweden 8.55, Russia 4.28, Great Britain 0.1, Spain 0.291, Germany 0.6638, France 0.3766.

tury will be required to change the equilibrium of clear land and forest, and thus reduce the supply of timber and an adequate abundance of salutary shade far below what will be needed.

In the condensed statement we have given of European and American forestry, we hope we have succeeded in impressing our readers with the same conviction that we possess, which is, that our land is moving forward towards deforestation. We see in the not distant future the certain doom of our oak and white pine forests, and, what is more, no immediate remedy at hand to resuscitate them. Had the government, which means the combined intelligence and forethought of the people, enacted a system at a very early date, embracing some regulations to point out the proportions of woodland that should be granted to individual possession, and that which should remain in perpetuity as State property, the most valuable of all our stores of material wealth, the oak and pine forests, would have retained their existence for an indefinite period. As it is, their loss can not be redeemed for centuries to come. In the course of time we shall undoubtedly exhaust Canada of all the timber she will have to spare, and before another Centennial commemoration draws around, our gigantic population will find the necessity of seeking in the tropical regions the various woods needed by the multifarious manufactures of the America of the future. Brazil at this day has a comparatively slender population of ten millions. At that not very distant day to which we have referred, she will have vastly increased in numbers; but notwithstanding this, her interminable forests of every variety of hard and soft timber will be open to the markets of the world, and we shall have to draw upon her resources. In a single district through which the Amazon, fed by its tributaries, runs, there is a circle of forest 1,100 miles in diameter. The rich growth of timber seen here is probably unequaled on the whole surface of the earth. Humboldt¹² tells us the palm, by his own measurement, rises to a height of 192 feet. Below the Isthmus of Panama the pine does not grow; neither do the needle trees flourish within the tropical regions. Yet all the hard, ornamental and many useful woods, including various species of cedar, grow there in richest abundance. Of the palm tree there are 400 species;

¹² See *Aspects of Nature*. Alex. Von Humboldt. Translated by Mrs. Sabine.

and among these there are many that are adapted to the purposes of building. When our own pines shall have ceased, Mexico will no doubt aid our wants, as various species of that indispensable wood thrive among the mountains of that country. The importation of timber from such a distant quarter for common purposes, however, would only suffice for an emergency; and long before such an exigency occurs, we hope the American will resort to the planting of trees by thousands of millions, as it will be the only means left us to ward off the disasters of deforestation and the appalling spectacle of a desert country with all the monuments of man's genius standing in its midst.

J. H.

AN IMAGINARY CONVERSATION BETWEEN JOHN
ADAMS AND JONATHAN SEWALL.

The Great Hill of Falmouth—In the Summer of 1774.

Sewall. That last stretch up Falmouth Hill has quickened my breath. Ah! what a view, and what a glorious sunrise! with the south breeze off the ocean. How clear and fresh the air. Look! at the bottom of the hill: see the little town with its smoking chimneys, and the bay dotted with craft. And, listen! even so far as this, we can hear the dog barking on the farther shore, the blocks rattling on yonder schooner, the heave-ho of the sailors, and, every now and then, the rough growl of the skipper. At such an hour and with such a scene, Adams, I am more than ever heart and soul with the Douglas—I had rather hear the lark sing than the mouse squeak.

Adams. And I too, if we had larks: but having neither them nor nightingales, give me our New England bob-o'-linc', and above all, I say, a real, true Braintree bob-o'linc'. There's a world of music in its little throat, and when, from the rose-bush under my wife's window, it mingles its own with the music of our brook and the sighing of our pines, trust me, there comes forth such melody as would make St. Cecilia herself turn around to hear.

Sewall. Our brook; our pines! True! you have been adding

lately to the Braintree acres, and your god Boundary, like old Rome's, takes no step backward and makes no long halts. This is well, and your power to increase has been right honestly and worthily won. Long, long, dear friend—to your children's children and beyond—may those possessions yield such music as your bob-o'-line's, running waters and sighing pines can alone give forth; long may they bless you with the freshness of your growing shrubs, the deep tranquillity of your books, the sweetness of your wife's greeting and of your children's laughter and of all home sounds!

Adams. Thanks, dear Sewall. I have known ever since the old days at Worcester, when we gave our evenings together to law and letters in Colonel Putnam's office, that I have always had your love as you have had mine. I have worked hard, it is true; and now that the world has grown somewhat solid beneath my feet, or rather that I tread more firmly its slippery surface, I begin to look longingly forward to the enjoyment of that time, when, with my wife and boys, I can share the comfort of an old book and an old friend. Begin to look, did I say! I should have said, *began*: for, already, clouds are gathering over my future, even as yon rising vapor veils the glowing surface of the bay. God wot! but something tells me that I have gone this circuit for the last time, and my heart is heavy thereat.

Sewall. Nay, nay, dear friend, cheer up! You, our Palinurus, whose eye has always kept itself fixed upon the immovable star! you, now, at this time, to peer out fog and murk! you to turn from light to gloom! Why should you? You are in the very prime of life, your conscience is clear, your powers are vigorous, your spirits nimble. What more of heaven can a man have on this earth than what you already have in the pride of profession, the respect of fellows, the love of family. Only yesterday, when you rose to argue, I was struck, as I have been a thousand times, with the unconscious, but all the more marked, respect that judge, bar and jury paid you. And is it nothing to have a snug house, a pretty farm, an amiable, sensible wife, and an annual increase of olive plants around your table, for whose support you are rapidly making provision! Are such things nothing? All men are not born at once to fortune, love, respect. Yet you have all these pressed down and running over, and to them is to be added the honeyed consciousness of having earned them. You have climbed to fortune's steep, not dropped there. Why, then, not take your rest?

Adams. Other things apart, consider this—something which your position as a salaried crown officer hardly permits you to feel the force of—that, by the disorders of the times, my occupation is well-nigh gone. The port is closed, the courts at home are closed, the very town of Boston seems doomed; men do nothing, commerce stands still, clients are seeking quieter and safer places. This means, my friend, that my livelihood is in jeopardy, yea, that the results of nearly twenty years' hard work are at stake. Understand me, not that I would have matters otherwise, if

“Out of this nettle danger we pluck the flower safety,”

for I can well imagine that the pangs of that parturition by which a nation is born must be great, and I well know that we must endure them. But as things are, how can I be merry and light-hearted while friends are flying, wives are weeping, and every eastern gale blows to our doors the wrath of a desperate king!

Sewall. If, indeed, things were so,—for I do not grant you that they exist now—if matters are really drifting to such a pass, I should share your dejection; but, though bad, they are not as bad as you make them out to be. For, in the first place, there will be no war—

Adams. No war! Man, there is war now! You may not believe it; nine out of ten of our countrymen do not believe it; but I—I hear it, I see it, I feel it. Yes, those closed courts are war; those armies are war, those fleets are war—everything is war, hard, bitter, iron war.

Sewall. Not yet, not yet. These are but the display of power, not its exercise. The government of England, in its relations to the colonies, is a paternal one, and it is but making that show of force by which firm, but still loving parents must sometimes awe their wayward children. The rod is not yet fallen.

Adams. Paternal government!—loving parent!—not yet fallen! Heavens, Sewall,—

Sewall. Listen but for a moment. You and I have watched this growing storm together. You have been no stranger to my thoughts, and you know well how earnestly I have prayed against this day. I yield to no one in my love of country. For years my heart has been wrung by the many wrongs which I have deemed somewhat arbitrary on the part of England; and if I believed that they were aimed at the destruction of our rights as free-born men, I would cry out to-day, as I did in '59, Resist, and resist with arms!

But I do not, cannot believe it. The fault is not wholly Britain's. May we not, likewise, be to blame? Witness the mob violence; the hanging in effigy of that substitute of royalty itself, the Governor; the outspoken and persistent disrespect to lawfully constituted authority; the measures of the parliament openly threatened with resistance, and in fact, resisted; the lives of good men made intolerable, merely for doing their duty to their sovereign by serving him at a time when fidelity means self-devotion, and self-devotion to the wrath of what gods, forsooth? The rabble! Witness the judges, whose every breath should draw the atmosphere of confidence, deference, and respect, see them slighted, traduced, vilified, nay covered with such contempt, that—you smile, but did we not see the other day only, how the whole band of our patriot brethren on the circuit—patriot, indeed—sneered at the Sheriff's reception of the judges at York, and how each lover of his country clapped spurs to his nag and took himself off from the quaint and time-honored ceremony whose forms conveyed that very same respect for authority which every feed patriot jumped at paying at the first nod he caught from the bench; and which every patriot without a fee was wishing he had a chance to pay. And witness, too, the destruction of private property, blind rage wreaking on harmless fellow-subjects the punishment it dare not threaten to the king and parliament that provoked it; the degradation of the press now become the organ of mere persecution and licentiousness; the violation of the right to speak freely, men being tarred and feathered and pelted from their homes for daring to withstand the mob's clamor, or for saying one poor word for that king whom we have all sworn solemnly to defend and sustain! Are we not, I say, somewhat to blame! Is England to sit idly by, while her subjects are abused, her representatives insulted, her officers maltreated, her parliament contemned, her judges despised, and all because they are Englishmen, and English at heart as in name! For my part, when I think of the trammelled commerce, the hindered administration, the thwarted legislation, the hampered justice; of the sneer, the threat, the lofty airs, the jaunty strut; of the downright rebellion now become the fashion with the very boys in the gutters—for my part, I say, I wonder not at what in her just irritation England has done, but at what in her mercy she has left undone. I marvel at her forbearance.

Adams. And so you should, if effects are to change places with

causes; but not till then. All these evils are not results from England's forbearance, but rather fruits of her oppression. God forbid that I should approve either of slighted justice or of mob law, but in the face of their existence, I will place the dishonor of their being where it belongs, to England's wrongs upon this land. You cannot really suppose, Sewall, that the personal dislike of a crack-brained king, of an infatuated minister, of a handful of judges, or the loss of a little commerce, has produced these "lofty airs" as you call them, which, in their turn, have evoked in our harbors fleets alive with armed men! I know you cannot. And yet, to hear you talk, one would suppose that these colonies were rightly and justly to be considered as children *in statu pupillari*, half-grown babes, to be clothed, fed, cared for, and, if necessary, stood on a stool in fool's cap and feather, or, if it come to the worst, trounced into obedience.

Sewall. Not so; although your illustration may have this much truth in it, that, after all, this whole difficulty is but the disinclination of a boy grown to be a man to remain longer in subjection; the inclination of conscious strength to cast off subjection to authority, and to strike out for itself. It was not until after he had waxed fat that Jeshurun kicked. But, alas, that this consciousness should be infatuation merely, and that, true to nature, this rebellious youth should be blind to the all-compelling power of an outraged parent.

Adams. I meant my illustration to stand as it was given, but I will not cavil at yours, for I am not afraid of the truth it contains—a truth expressed by Harrington, a hundred and twenty years ago, when he said, "For the colonies in the Indies, they are yet babes, that cannot live without sucking the breasts of their mother cities; but such as I mistake, if, when they come of age, they do not wean themselves, which causes me to wonder at princes that delight to be exhausted in that way." I am not ashamed to own the force of your comparison. Nay, I thank you for it, for in so doing you plainly admit that we have attained manhood, and with manhood comes the duty, on our part, of putting away childish things and of demeaning ourselves as free-born, independent, self-reliant men. And, on the other hand, the duty of Great Britain is equally clear. If we are really grown great and have put on conscious manhood, our loving parent should do one of two things—either admit us to equal rights with her other children, by recognizing our capacity for self-government; or else, bid us

God-speed, while we start out into the world on our own account. Anything, indeed, except what she has done in adopting this humiliating and insulting policy of administration, founded on the assumption that a Briton born in Massachusetts is inferior to one born in Westminster, and is to be governed by the latter.

Sewall. It strikes me, Adams, that in your search for reasons, you poach on grounds not purely political. Both mortification and a sense of abasement, though causeless, spoke in your last utterance.

Adams. If your meaning is, that reasons for resistance are forthcoming from the human breast as well as the human mind, I admit it. There is no element of human life that does not turn against that cruel step-mother. These very stones cry out against her; the very birds bring accusations on their wings from the four quarters.

Sewall. Accusations, it is true: but proofs, none. Were not you and I born and have not we lived under the English constitution? Does it not yet exist for us? As for me, I am still content with it.

Adams. Then be content with little. I boldly say that the British constitution was not made for us, or, being so, that we have never enjoyed that to which we have been entitled. Mark! The Constitution of Great Britain has for one of its foundation rocks, representation of the subject. Are we represented!

Sewall. The Parliament, which represents the realm, makes our laws.

Adams. Yes,—And we know it. And heaven help the land when the lawgiver is not first and last its representative. If you doubt it, look at Boston!

But what authority has Parliament to make our laws? By the law of God, it has none; by the law of nature and of nations, it has none; by the common law of England, it has none, for the common law and the authority of Parliament founded on it never extended beyond the four seas; by statute law, it has none, for no statute was made before the settlement of the colonies for this purpose. Add to this, that Americans are entitled to all the privileges of Englishmen; that it is the privilege of an Englishman to be exempt from all laws that he does not consent to in person or by representation; that Americans are not represented in Parliament, and that therefore Americans are exempt from acts of Parliament; in short, that America is not subject to its authority. Thus, though, as you say, Parliament makes our laws, you see that it has no right to

do so, and that we are under no religious, moral, or political obligation to submit to them.

Sewall. But, my dear sir, whence, then, would you have us New England men derive our laws?

Adams. From those sources which never should have been polluted—From the law of nature and our chartered compact with the crown.

Sewall. Grant it, that the colonies are not subject to the authority of Parliament, you are led at once to the abrupt conclusion that Great Britain and the colonies must then be distinct states; just as Great Britain and Hanover are now.

Adams. Well, that is not startling. Why should not one of the royal titles be *King of Massachusetts*, which would at least be true, as well as King of France used to be, which was not true?

Sewall. Certainly it might be, if it were to end there. But, to add that title would be to add as many others as England has colonies, and the long train would cumber the march of Empire. Each little kingdom would be chief, in its own eyes, and would want to stand foremost to the exclusion of the rest. Thence would arise irregularities, jealousies, collisions, and the royal power, diminished by what each petty sovereignty retained at home, would be shorn of its prerogatives, and lacking the power to concentrate within, would fail to enforce respect without.

Adams. And would that be so direful a result? For my part, I am free to say, that the spectacle of excess of power passing from the throne to the hearth is a glad one. Sewall, the best inheritance transmitted to us by the free tribes from which our race has sprung is that tenacious love of local self-government which has marked every age of our life, every step of our progress. It is our glory. True it is that tyranny at times has struck it down, but equally true it is that it has sprung again to its feet, renewed by contact with its mother earth. It is the very essence of liberty, yea, it is freedom itself—and it brooks no rival, for rivalry means destruction. If, then, excessive prerogative must give way to healthy popular power, so be it.

Sewall. But, surely, there is virtue in harmony, in symmetry; there must be more strength in broad unbroken empire than in the aggregation of a score of separate kingdoms, be they never so pressed together.

Adams. There is virtue in symmetry ; but it must be the symmetry that springs from the healthy development of peoples, unexpressed by any force save that of natural law ; above all must it not be the symmetry, which, it is said, can be seen in the French king's gardens at Versailles, where there is symmetry, indeed, but it is the symmetry of the hedge-bill and pruning-knife. And for the harmony, it should be that which exists between the separate globes, that, each in his own orbit, with his own motion and his own life, revolves around the one, common centre.

But, really, Sewall, there is no such thing in Saxon development as the symmetry you would have the English dominions display. Local self-government means natural development, and natural development means that development which ensues from growth unrestrained by any force but what the God of nature has imposed upon a people. All true law comes from God, and the wants, necessities, pure aspirations, instinct, if you will, of the different peoples, find out for themselves their own law. Thus it is, that, under our law of Saxon being, the different forces of the different communities have scope and action each in its own way. Thus it is, that instead of one dead level of thought and action, our Teutonic races present a variety of habits, customs and laws, which has no analogy save that to be found around us in the varied handiwork of the Creator himself.

Your symmetry, my dear Sewall, I fear means the symmetry of those boundless savannas in our west, where earth and sky meet in one unbroken horizon over a lifeless plain. My symmetry is that which the universal face of nature, taken together, presents in all the varied beauty of land and water, mountain and plain, savannah and forest, and all instinct with life.

The sin of England is, that after struggling for generations to be free, and after having finally asserted the natural law of her being in her last glorious revolution, she denies to us, her children, the heirs of her character and aspirations, the right to do the same thing—to work out our own existence in our own way.

Sewall. You do me injustice, Adams. All this rich, freedom-born variety is as dear to me as it is to you, for it means to me just what it does to you—it is the mark and characteristic of our free growth, of our abiding love of the soil. And, indeed, if you carry your memory back to those old days to which you so tenderly

alluded but just now, you will remember that of such a nature was the sweetness we together used to draw from the pages of Cæsar and Tacitus; that together we shared in the joy over the defeat of Varus and the legions in the forest; and together we delightedly traced the varied impress stamped by the divers landfolk on our common law, where stubborn Kent, unruly London, courtly Oxford, each had left its ineradicable mark. Still, time will make its way. Time brings civilization, and civilization blends discordant elements. The hundreds united into counties; the counties into kingdoms; the kingdoms into the realm of England; and the realm now broadens into empire.

Adams. A fico for your empire! "British Empire" is not the language of the common law, but the language of newspapers, of political pamphlets, and of politicians. The British government is not an empire, and never will be as long as British self-government lasts. An empire is a despotism—and there are only two despotisms in all Europe, the Russian and the Ottoman; an emperor is a despot, bound by no law or limitation save that of his own will, and whose maxim of rule is, *quod principi placuit, legis habet vigorem*. But the British government is quite a different thing. It is a limited monarchy; and if Aristotle, Livy and Harrington truthfully defined a republic as a government of laws and not of men, then the British constitution is nothing more nor less than a republic in which the king is first magistrate. That the office is hereditary and endowed with ample and splendid prerogatives, is no objection to the government being a republic, as long as it bound by fixed laws which the people have a voice in making and a right to defend. But I grant you that, so far as the colonies are concerned, the British government is imperial, for it is so far forth despotic.

Sewall. I admit that it is not empire such as that; empire in acknowledged name and despotic constitution. But empire as a physical fact, it is. Behold its structure! Language can no more define its extent than it can define the girdle of the globe's extent; for it begins and ends nowhere. It is everywhere; it lies under every sky; it is scattered, here and there, over every sea. Allegiance is sworn by its peoples in scores of different tongues, by men of different colors, and before different gods. And all these diverse parts, these diverse races, are bound together not by sentiment merely, but by a power which, in the beginning, was able to bring

them together, and which to-day is more than able to keep them together. If this be not empire, what is it?

Adams. Simply, as your own words show, enforced conjunction. And is it you, who in this very moment have rung the praises of our Saxon freedom,—is it you who would have us haughty Britons bow submissive to the same force which cows the cringing Bengalese!

Let us not wander from our landmarks, lured by the glittering delusion of that word "empire." It is a lie, conceived in sin and brought forth in iniquity by that juggling set near Westminster. But thank God that, at this late day, Americans are not to be bubbled out of their rights by flights of fancy or by high-sounding figures of speech. In one thing, at least, our skirts are still clear—our loyalty to the king's English. But "empire" is not English, it is Latin; and, if the detested word is to be filched from Rome at all, by all means bring along with it all that belongs to it. Let us have all that its sound conjures up!—the spectacle, for instance, of a broad, unvaried power broken into a thousand fragments by the silent, restless, upheaving forces of freedom-loving tribes. Let us see London wall piled on the top of Roman foundation.

Much sport may you have in chasing that shadow, empire! A figure of speech it may be; but a household word in our free tongue, never. Sewall, if I imagined that Falmouth Hill could ever blossom beneath the sun of empire, I would pray almighty God right here that before my steps departed hence, it, and this whole English-speaking coast, might be sunk so deep in the Atlantic that the keels of our degenerate race should find no anchorage in the abyss.

What a force there is in words! They make their way into the soul through that little channel, the ear, and if to the manner born, straightway become a part of ourselves. But, if alien to our being, they work slow poison, lying torpid for a while, until heedlessness, or worse, starts them along the courses of our action to inoculate the whole body with leprosy. Here, now, is that frozen viper, "empire," warmed to life in one of the purest bosoms that ever glowed, already striking its fangs into our very blood. I would that Berkeley had used another word.

Sewall. Well, well, Adams, you were ever over nice in criticism. Still, I would not that a figure of speech should fright you from your propriety; and I confess to often hugging to myself the fancy that the good bishop's imagery may become a living fact;

that after a few centuries shall have rolled away, long after we, who are now bustling upon the stage of life, shall have been received to the bosom of our mother earth and our names even are forgotten—the course of empire may reach this, our western shore, and that fruitful fields and dense populations, teeming with free institutions tempered by an all-pervading civilization, may induce, perhaps demand the presence of a kingly power, around whose throne would grow an empire of such strength and glory as the world has not yet seen.

But, let it pass. If Latin “empire” is too dangerous a plaything, even in its frolics on the tongue, let us content ourselves with that good old Norman word “realm.” You will not deny that we are part and parcel of England. The best writers on the law of nations tell us that. Moreover, two supreme or independent authorities cannot exist in the same State, for it would be that height of absurdity, *imperium in imperio*. If, then, we are a part of the British realm, we must be subject to the supreme power of the State, which is vested in the Estates of Parliament, notwithstanding each of the colonies has legislative and executive powers of its own, delegated to it for the purpose of regulating its own internal police, which are subordinate to and must necessarily be subject to the control of the supreme authority. You certainly will not deny that.

Adams. But, indeed, I do deny it. Ah, Sewall, Sewall, you are too good a lawyer to doubt my denial that the Massachusetts is part and parcel of the realm of England. But I know well what causes the confusion by which “empire” and “realm” come mingled together, or, at your bidding, change places on your tongue. America must be a part of the realm in order to be bound by the authority of Parliament, must it not?

Sewall. Certainly.

Adams. I thought so.

But when was America ever annexed to the realm? Nay, to what realm was she ever annexed? When New England was settled a couple of centuries ago, there was a realm of England, a realm of Scotland, and a realm of Ireland. To which of these three realms was New England annexed? To the realm of England? Then, by what law?—for no territory can be annexed to England without her consent, nor with it without a solemn expression of that consent, and a solemn definition of the conditions of annexation; and all that takes an Act of Parliament. Wales was so annexed; but what Act

ever passed to annex America, or any one of the colonies? To the realm of Scotland, or to the realm of Ireland? No one has yet mentioned them, though the absurdity would be no greater. To the realm of Great Britain, created since the settlement of New England? But, in the Act of Union, which incorporated England and Scotland into one kingdom, by the name of Great Britain, there is not one word about America, New England or any colony therein.

Besides, behold the evidence that we are not annexed to the realm of England in the Acts of Parliament themselves. If America were so annexed, every act of Parliament would extend to her, though she were not named in it. But the acts do constantly distinguish between the realm and the other dominions of His Majesty—between Great Britain and Ireland, between Great Britain and Massachusetts, between Great Britain and Pennsylvania, and so on.

Sewall. Then Massachusetts is a realm; New York a realm; Pennsylvania a realm!

Adams. Even so; as much as Ireland is a realm now, or England or Scotland ever were. Thus you see that you were not far out of the way in your deduction from my remarks, that George the Third might and ought to be King of Massachusetts.

Sewall. If, then, "empire" is a delusion and "realm" a snare, pray, Adams, to what part of Great Britain do we belong?

Adams. To no part of Great Britain, but to the British King's dominions.

Sewall. A mere distinction without a difference.

Adams. Indeed! Tell me, you who hold your allegiance as no slight thing, but as a solemn, sacred bond and covenant—tell me to whom we have sworn allegiance?

Sewall. To the King, of course; to whom else could we?

Adams. True—and in very fact and deed we do hold to it, to the King himself, and none other; to the King's own, natural person. Such, then, being the case, is not this colony *his*, his *realm*? And are not all these colonies his *realms*, and, being realms, his *dominions*? They are not the dominions of the people of Great Britain, and, therefore, are not the dominions of the Parliament, which rises no higher than its source, the people.

Thus, this whole question clears itself. Our colony is a realm of its own, and, as a realm, it should make its own laws. But, as it is, the rights of the realm are usurped by a body which does not repre-

sent us ; yet which, nevertheless, exercises the most emphatic right of sovereignty, the imposition of taxes. Here you have it. Does it differ in any way from the condition of the Bengalese ? They may submit to it ; we will not. Nay, though Parliament were to cease making laws for us forever ; yet so long as it claims the right to do so we will never submit—never, Sewall.

Sewall. Yet see to what this word “dominion”—itself Latin, by the way—

Adams. True, but still a healthy graft.

Sewall. See to what this word “dominion,” and this allegiance to the King’s own person lead you. For, if the British constitution and laws are out of the question, but we are still bound by our allegiance to the person of the King, whose prerogatives have never been limited—still under his dominion—where are our defences against his encroachments, where the limits upon his power ?

Adams. Our charters, wherein those prerogatives are limited by the very clauses which secure our rights to us. And as to those colonies without charters, the commissions of the governors have ever been held as securities equivalent with charters. But the greatest security of all is to be found in that free spirit of the race of which I spoke, and which does not brook an absolute king. The King is not absolute in the colonies. He is absolute nowhere, except in right of conquest ; a right so contrary to the fundamental unwritten law, that to assert it here would be to forfeit his right to the crown.

Sewall. You cannot forget, however, that, like all charters, ours may be forfeited if we do not fulfil the conditions of them.

Adams. I have not forgotten it ; and, to speak plainly, I would not care much if they were forfeited. For then the King would have no power over us at all. He would not be bound to protect us, nor we be bound to our allegiance. All connection between King and colony would be severed, and we would do what we should be permitted to do—set up for ourselves.

Still, I do not forget, too, that how, on the other hand, it is held that the charters cannot be forfeited at all, inasmuch as the court of chancery, which would have to decree the forfeiture, has no authority without the realm. And God forbid, say I, that the rights and privileges of millions of Americans should depend on the discretion of a Lord Chancellor.

Sewall. What madness! Break the ties that unite these colonies to England, and what would be the result! A handful of people strung along an infinitude of coast, resolved into a baker's dozen of weak communities, with no power of concentration in themselves, no cohesion with each other. Unity of sentiment, the one thing needful to unity of government, is wanting at this hour; and, if the imperial bond were loosened to-day, the spectacle would be presented of a beggarly band of weak, irresolute peoples—*discordia semina rerum non bene junctarum*—without unity, without force, without even a leader, setting themselves up as sovereigns, but destitute of the wherewithal to enforce their pretensions. While, on the other hand, against this motley array would be massed the whole force of the strongest, most closely knit, most complete government the world has seen since the days of Cæsarian Rome. Why, this band of rebels would melt away at one blast of England's trumpet!

Adams. Let those laugh who win. It is not so easy a thing for even the most powerful state to conquer a country a thousand leagues off. But, let us see ourselves as others see us. In the first place, we have among us that very unity of sentiment that you say does not exist. We know it, if you do not. Go back to the time of the Stamp Act, when the Assemblies of every colony agreed that Parliament had no right to tax the colonies: when all the members of the Massachusetts House of Representatives—many of whom have since figured as friends to government—concurred in the resolutions; when the Congress of that year, at New York, expressed the same resolution; and when our colony sent out the famous circular letter, which was received in all the Assemblies with one voice of approbation and applause! When, in the year '68, non-impotation was the order of the day, what sustained it throughout the whole land, with the force of the laws of the Medes and Persians, but that unity of sentiment it seems you could not see, but which, I doubt not, you felt? And again, in '70, what was the horror and resentment at the shedding of innocent blood, but the common sympathy of a common brotherhood? Look over the resolutions of the several colonies since only this March last past, and see the one understanding that governs, the one heart that animates the whole body. Assemblies, conventions, towns, cities, counties, clubs, all have been moved by one great, wise, active and noble spirit, one masterly soul animating one vigorous body. And when we consider

the variety of climate, soil, religion, civil government, and interests this "infinite of coast" presents—when we reflect that the policy of Great Britain for years and years has been to keep them in conflict, that her maxim has been *divide et impera*, the harmony and unanimity which everywhere prevail can scarcely find their parallel in history.

On the other hand, where is the boasted unity of England? The government, troops and the whole army of placemen are united; but they do not make up England. Look, how the current of public opinion sets against the government. We know that millions in England and Scotland think it unrighteous, impolitic and ruinous to make war upon us, their own kith and kin. We know that London and Bristol, the two greatest commercial cities in Britain, have declared themselves in our favor. London has made her members give solemn pledges to assist us, and Bristol has sent up to Westminster two known friends, and one of those friends is Edmund Burke. We know that many of the noblest of the nobility and gentry are with us—St. Asaph, the best of bishops; Camden, the ablest and purest of judges; Chatham, the greatest of England's whole line of great statesmen.

As for leaders!—when the time comes, they will be there. Jehovah jireh.

Sewall. I admire your faith, Adams, but I wish it were not misplaced. You build a tower without counting the cost thereof. Nay, why do I say "build?"—rather are you tearing down the foundations laid with patient hands. Whose will be the hands to build again, and what the building, you know not. One thing, alas, we know; the architects must of necessity be raw, the hands be young and feeble, the structure to ensue unable to abide the winds and rain.

Adams. This I know; that the patient hands that builded were our own, and that the materials used were the free institutions and those maxims of self-government which we brought over with us, and which were as much ours as other Englishmen's. Our taking them did not lessen the stock of English freedom. The fountain still runs brimful—for England-born. And I know, too, that the same hands that builded once, can build again; nor do I mistrust that the structure will be stout and strong, comely and fair withal to look upon. At any rate, no one can say that it will not be our own. Trust me, dear friend, you and I have been sent into life at

a time when the greatest lawgivers of antiquity would have wished to live.

Sewall, if there be one injustice which Englishmen and Anglo-maniacs are constantly guilty of—one thing in which they are more unfair than another to America—it is this eternal sneer at America's youth. By youth is meant rawness, inexperience. It is not true that we are young. The colonies are young; but the institutions, the civilization, the people, are not young. There is not a single free institution in America that is not as old as the oldest in England. How can it be otherwise, since the institutions of both are the same, and all, as says Montesquieu, were born in the woods of Germany? Did the first settlers leave behind them, on the shores of England, their habits, customs, laws? As well might you say that they left behind them the fair hair, the blue eye, the ruddy complexion! Or, where the evidence that the old things have become new? Forms, indeed, may have changed, but the thing itself has not—as well say, we changed our Saxon tongue for Indian! We did not cast away our English civilization—we brought it with us, gipped to our bosoms, and we planted it in new and virgin soil, where it grew right on, more vigorous than ever. And, instead of waning in our experience of government, of life and of civilization, the blindest of those who can see at all, must see that our venture into further fields could have but added to our experience.

And so, Sewall, should these colonies ever become independent of Great Britain, you will see the new government, whatever be the form it may assume, a limited government; and built out of those very institutions which, once new to Englishmen, have never been anything but old to Americans. And you will see it operating within its restricted bounds on a people absolutely free; in short, you will see the old government, under the care of the old race, flourish in a soil that may be new, but which promises to be very kind.

Sewall. I am well aware, Adams, that analogies are dangerous, and that the analogy between things physical and things political is peculiarly so. Still, I cannot forbear likening the flourishing shrub of your dreams to the plant that is twisted, bruised and torn in the transplanting by the unskillful hands of the gardener; or, perhaps still more truly, to the plant which, once flourishing in a warm and

fertile soil, languishes and dies when transferred to such a cold and rocky ground, as that of our New England, for example.

Adams. The metaphor physical, the metaphor horticultural, has indeed been too much for you, Sewall. For, our New England soil is but a small part of those vast tracts in which the old free government would flourish in its latest shape; and, though the stoniest, I believe it will be admitted by even the most grudging, that those very institutions have twisted their roots marvellously well into the crevices of these barren rocks. Freedom loves the hard and rocky places of the earth; the air is purer, the footing firmer; and then, too, what cares she for rock and desert, she at whose mere touch the waters gush from the flint and waste places, dance and sing? Moreover, she knows well that

“Most subject is the fattest soil to weeds”——

But, let us not both wander too much in metaphor. The long and the short of it is, that the soil of institutions is made up of men's hearts and minds; and right here, in New England, we have as good soil of that kind as there is anywhere—perhaps a little more firm and tenacious than is usually found.

Sewall. That last observation, Adams, is unanswerable. For once, in this discussion, we agree; we are, truly, a rather stubborn people, though a kindly. But, I observe that you stick closely to but one of my metaphors horticultural. The other,—

Adams. Ah, yes; excuse me—that one about transplanting? I wish we were both of us transplanted on this lovely morning to the Braintree meadows. But, your other metaphor horticultural! Oh! that falls to the ground, because there are no facts to support it. For, how can we transplant, when the transplanting was long ago done for us? Our institutions were transplanted when the colonists first brought them over; and, for nigh two centuries, this plant has been one of extraordinarily vigorous growth, when we consider how the gardeners themselves have tugged at its roots, and how it has been hewed and hacked at by every bungler who had not wit enough to know a bill-hook from a pruning-knife.

I tell you, Sewall, this assumption of venerable age by England, this sneer at youth in America, is absolutely baseless. That distinction between the two does not exist. It is begotten in ranting pride, and, like pride, will have its fall, if it is ever acted upon. The honest pride of England ought rather to rejoice at this western civiliza-

tion, as part of her own, and should claim it as her own most jealously.

This is a strange way of convincing us that we are a part of the old realm of England, my good Sewall; and you must not blame our raw and bungling youth, if, stung by taunt and sneer, they take the "proud bully" as Pope calls him, at his word, and say—Be it, then, as you will have it. Since our American freedom is a new and alien thing, we will maintain it separate from you.

Sewall. You carry my language against me too far, Adams; and you urge your argument as if I were not as much of an American as yourself. Think you, that born under this sky and nurtured by this soil, I am not bone of my country's bone, flesh of her flesh? I, too, am an American; and I love America with that deep piety that would lead me to dash myself upon those jagged rocks, without a moment's pause, did I but believe that by my death her life might be prolonged. I love her, indeed, too much to stand idly by and to fold my hands as she rushes to her destruction; too much to hasten her calamity by my prudent silence. My part may be that of Cassandra only, but my unavailing cries shall split the vault above us sooner than that without my protest the land of my birth shall brood under the silence of desolation. No, my whole heart is hers, and I would rather that my tongue should cleave to the roof of my mouth and my right hand forget her cunning than that I fail her in her need. That need, alas, is now great; and woe to the enemies that be of her own household! True it is that our institutions be old; true it is that our maxims be ancient; but all the self complacent pride and all the force of self-convincing reason will not, cannot blind me to the truth, that we are launching on an unknown sea, in an untried bark, under pilots we know not of, and with the heavens above us black with the rushing storm.

Oh, that this voice could make itself heard! Oh, that the grasp of this hand, the yearning of this heart, could be felt by my countrymen!

Adams. Oh, that that voice, that hand, that heart were with those who would raise America, not cast her down!

Sewall. Raise but to cast her down again, I fear. Oh, Adams, dash away this delusion; see this weak, this nerveless stripling in the death-grip of that maddened Hercules! I said there would be no war, and there cannot be; for war implies resistance, but what resis-

tance can our poor and feeble colonies make! Good and noble they are, though misled, but still poor and feeble; what resistance can these scattered handfuls make? They have no more strength than what invites destruction, and one blow, but one quick, deadly blow, will make them—what? Conquered rebels, and a by-word to the end of time! Stop, reflect! Even yet all may be peace. I know whereof I speak, when I say, let the colonies forbear this headlong course, and an understanding may yet be brought about, and a peace ensue which will give America all she asks. You shake your head! Then do not go to Philadelphia. Word has come that you are chosen a delegate to the Congress of colonies. Do not go, Adams! I beseech you, as you love your friend, your wife and children, your country, go not to that accursed assemblage of the discontented. Let me, who have been your friend for the best part of our young lives, who have borne towards you a love passing the love of woman, who would to-day, this minute, swim that boundless ocean to compass your safety, let me implore you for your own good to stay your steps. Destruction, swift destruction hangs over you; for well I know that deep ambition, that stern purpose, that unbending will. Well I know, that, once there, you will be foremost in the rebellious synod, and foremost afterwards to meet the wrath of furious power.

Adams. Jonathan, I know your love, and you have often heard me wish that, even in name as in fact, I were your David. But, being David, I must act the part of David. So, tell me not of angry kings, of vengeful parliaments, of determined, foredoomed destruction. I know too well Great Britain's determination—I am as determined as she.

Peace there cannot be—it is too late! My Rubicon is passed, and not in this hour, so long foreseen—not in this hour, when my country calls for every voice and every hand—shall my poor help be wanting: not in this hour shall I be a very bondsman to quail and quiver at the lash that has not yet fallen! Not now shall I, who have given my best years to an opposition as firm as it has been constant, cringe, cap in hand, to humbly ask, What may England bid? Not now the time to hug ignoble ease, to dream of books, of friends, of homely joys!—all these are gone, and in their stead must come the stern duties of the senate and the camp. Yes, ambition I may have, but it is the high ambition to serve my coun-

try: purpose I may possess, but it is the stern purpose to effect her freedom: will may be mine, but it is the unbending will to assert her sovereignty! And when I think of this fair land; of her rights stolen, of her freedom stricken, of her friends seduced, of her soil trodden by armed men, of her waters ploughed by armed keels, of her enemies' boasts and of her own bound and forlorn condition, I will never, never yield one jot or one tittle of my determination to go to that Congress; but come what may, I will swim or sink, live or die, survive or perish with my country.

Sewall. My good Adams; my good Adams! For the love of heaven, be not so impetuous! Be not so determined—change!—but, what folly in me to dream of your changing that, which once determined upon, I know to be as fixed as the living rock. That iron determination! Alas! it separates us, as by a great gulf. The past is powerless before this raging present; argument is useless; the tears of undying friendship are useless. I see it but too plainly—here our roads divide. And must we, then, say farewell? must we, then, part?

Adams. My dear, dear Sewall, we must, and, with a bleeding heart, I say, I fear forever. But, Sewall, remember this, that this farewell is the sharpest thorn on which I ever set my foot. But there is the meeting-house bell summoning us back to court. God Almighty bless you! Adieu, dear Sewall, adieu!

EBEN G. SCOTT.

PROFESSOR GEORGE ALLEN, LL. D.

THAT the world knows little of its greatest men is a fact that can escape no thoughtful observer. Within the present decade there have passed out of our mortal ken some of the noblest and rarest spirits that God has given us for lights and guides in the world; and altogether they have attracted less attention than did either of the two millionaires who have died within the same period in a sister city. The public imagination is not excited by any accumulations save those which are material and tangible. Millions of dollars represent a mass of force of the sort which even the vulgar

mind can understand, and in some degree appreciate; but it cannot understand the mental riches, the gathered stores of experience, of ripe wisdom, of wide and exact knowledge, of accurate scholarship, and above all of that blending of knowledge and character called culture, which are the results of success in other fields. It has ever been the aim of this magazine to address itself to those who possess a standard for the estimate of lives spent as was that of the great man whom our city and its University have so recently lost; and we need therefore make no apology for seeking space to speak here of his worth and of our sorrow. Many of our readers were his pupils, and from them we expect no other censure than that we have said but poorly what they would desire to have said of their dear and honored teacher.

George Allen was born in Milton, in the State of Vermont, December 17, 1808. His father, Hon. Heman Allen, was of old Puritan stock, a member of the bar of the state, and very highly respected by his fellow citizens. He served his state both on the bench and in the halls of Congress. He was a man of insight and foresight as well as character; a conservative in politics, he deplored many innovations in our political methods, especially the policy of President Jackson in removing his political opponents from office, and foretold the consequent degradation and corruption of our whole political system which would result from it.

His son received his first education at the district school of the neighborhood, but in 1822 he was sent into Canada where he resided with an excellent priest, Father Consigny, for the sake of acquiring the French language; and never lost the perfect mastery of it he then obtained. The next year he returned to Vermont and matriculated at the University of Vermont, in Burlington. While a student at that institution a change took place in its Faculty, which was an event in Mr. Allen's intellectual life. Dr. James Marsh was called to the presidency. It was a period when the mind of New England seemed sinking into stagnation. The dry, mechanical thinking of the school of Locke and Paley had long held the ascendancy; "common sense" was the supreme test of truth; freshness and vigor of thought was a thing of the past, and save in the vigorous polemic discussion of secondary theological and political themes, there was hardly anything worthy of the name of mental movement. Dr. Marsh, however, had drunk deeply of Coleridge; and, through Cole-

ridge, of Kant, Schelling and the other great Germans. He was no lifeless imitator, either, but one whose own intellectual life was vigorous and independent. In his every utterance there was the breath of an intellectual atmosphere as clear and pure as that of his native hills. A band of zealous disciples gathered around him, attracted both by his noble character and by the new, living and dynamical philosophy with which he replaced the old mechanical forms of thought. Lessons were learned and impulses were received which have never ceased to influence the theological, political and philosophical thinking of our country. While other influences equally vigorous have come into play alongside that of Marsh and Coleridge, and while some who, like Emerson, once sat at the feet of the former, have turned aside from following those masters, it should never be forgotten that with James Marsh at Burlington began the new and more productive era of American speculation.

No one was more profoundly influenced by Dr. Marsh than was George Allen; he used to speak of it as an instant of revelation, a supreme moment in his life, when Dr. Marsh occupied for the first time the college pulpit. From the admiring pupil he became, with the lapse of years, the zealous friend and champion of his revered teacher. He treasured every scrap of his utterances, copied his great sermons, and carried on a correspondence with him till Marsh's death.¹ But it was not so much the theology or the metaphysics of the Coleridgeans as it was their higher principles of literary interpretation and criticism, that moulded his own career. He absorbed with especial ardor their enthusiasm for Wordsworth, and their liking for the Germans, especially Lessing, Goethe and the Romantic school, authors who never lost their high place in his regard.

After Mr. Allen graduated, he served for nearly two years in the room of an absent professor, and was desired by Dr. Marsh to remain as a teacher in the university; but, in obedience to his father's wishes, he began the study of law and was admitted to the bar in 1834. But while he very greatly enjoyed legal study, and never lost his interest in it or ceased to find profit in what he thus learned, his literary tastes drew him in another direction.

¹ He also took charge of printing those works of Coleridge which were published at Burlington under Dr. Marsh's auspices, reading the proof-sheets, and so forth. The habit then formed of reading critically and pencil in hand never left him, and was most useful to him in after life.

His father's family belonged to the Standing Order, as the Congregationalist churches of New England were called before their disestablishment. But nothing that he had seen of that denomination had ever attracted him towards it, and his knowledge of some of the Church law-suits, in which his father was retained, had very decidedly repelled him from the system. In 1824, when he was at college, his room-mate showed him a prayer book; and when one of the Professors began to read the service to two Episcopal families and a few of the students, he bought a prayer book and began to attend the service. It was the first thing in the way of religion he had really liked, and his father, who was by no means an enthusiastic Congregationalist, seems to have acquiesced in this change on his son's part. About 1830 a parish was organized in Burlington, and Mr. Allen at once became one of the congregation, and was soon after confirmed.

When his father came home from Congress, he plainly saw that theology was more to his son's taste than law; and though somewhat disappointed, he made the offer to support him in pursuing his studies at the Seminary in New York city. Mr. Allen declined the offer from motives similar to those which prompted it, and cast about for some way of accomplishing his end without becoming a burden on his family.

In 1832 Mr. Allen began to study for the ministry, and at the same time became assistant to the late Bishop Hopkins in a seminary taught by the latter at Burlington. As might be inferred from the great disparity of their characters, he was not much in sympathy with the bishop's principles of instruction or methods of discipline. He had more faith in a wholesome allowance of flogging than in appeals to the Christian emotions of an unruly boy. But he continued at this post two years, and then accepted a call to the rectorship of the church at St. Albans and was ordained a presbyter. As a pastor and a preacher he seems to have greatly enjoyed his work, and to have succeeded beyond his expectations. He never forgot the enthusiastic affection of his people, not only for himself, but especially for his wife. And the necessity of making preparation for the pulpit acted as a needful mental stimulus, so that he found time for and pleasure in other sorts of literary work. He always regarded this as his period of greatest mental growth.

He now began writing for the *New York Review*, with an article on "The Study of Works of Genius." And when Rev. Prof. J. McVickar, an Episcopal clergyman of some eminence, published an edition of Coleridge's *Aids to Reflection*, with an introduction in which Dr. Marsh was very needlessly assailed, it was Mr. Allen who replied to this attack and other attacks from the same quarter in a series of articles. It was characteristic of the man that, although Prof. McVickar was so much better known than himself, he would not write anonymously, but signed his name to all his articles. He would sometimes laugh, in later years, at the warlike style in which he carried on this controversy, and say that nobody would now believe that he was the author of those articles, were it not that they bore his name. It was at Dr. Marsh's request, or at least at his suggestion, that Mr. Allen entered the lists on this occasion, as being the better qualified to reply to an attack which came from a member of his own body of Christians.

In 1837 he resigned his rectorship because of an attack of bronchitis; and being called to professorships in four different colleges, he accepted a chair in Delaware College at Newark. From this time he belongs to the Middle States. He came from New England, as he used to say, full of the notion that that section of the country had nearly a monopoly of American scholarship, or that at the least whatever existed elsewhere had been transplanted from that highly-favored cluster of States. But in a very brief time he found that the Middle States possessed a traditional scholarship which owed nothing to New England, and was—to say the least—not a whit behind hers in thoroughness of method and extent of range. On tracing the early history of our colleges and academies, he found that this was owing almost entirely to the educational labors of Presbyterian clergymen, chiefly from the north of Ireland. And while he discovered among us some traditional peculiarities derived from those early teachers which seemed to require correction, he never ceased to call attention to the great debt we owed them, nor to praise their thoroughness as classical teachers. The present writer well remembers that when his article on "Ulster in America" appeared in the pages of this magazine, Dr. Allen, with something approaching sharpness, complained of the omission to speak of the great services rendered by the Scotch-Irish clergy as the educators of the Middle and of much of the Southern and Western States.

Prof. Allen's labors at Newark are but slightly known to us. But of course he carried thither his enthusiasm for Coleridge and Wordsworth, and he seems to have found at least one fellow-disciple in the little faculty. Rev. W. S. Graham, the principal of the Newark Academy, which formed the preparatory department of the college, "formed his first acquaintance with Coleridge" after accepting that position, most probably through Prof. Allen, for they shared in "a still closer intimacy," he says, than that which grew out of their association as professors. Mr. Graham died soon after Prof. Allen left Newark, but no break had occurred in their friendship, since the latter edited the little volume of his friend's *Remains* published in 1849.²

It was in 1845 that Prof. Allen was called from Newark to the "Professorship of Languages" in the University of Pennsylvania. This chair had for several years been filled by Dr. Samuel B. Wylie,³ one of the most eminent of those Scotch-Irish scholars we have referred to. Growing years and infirmities had compelled him to ask a release from active duties, and for a short period the duties of his chair had been discharged by an assistant, now Dr. Geo. E. Hare, of the Divinity School. The two candidates for the position vacated were Messrs. Hare and Allen, and for a time the canvass of their respective claims was very vigorous. It was in the days when a more pronounced Churchmanship was coming into vogue among American Episcopalians, under the leading of the Oxford

² REMAINS OF WILLIAM S. GRAHAM. With a Memoir [by his wife]. Edited by George Allen, Professor of Languages in the University of Pennsylvania. Pp. 278. 8vo. Philadelphia. 1849.

³ Dr. Wylie came to this country at the close of last century, having taken too prominent a part in the political movements of that period to permit of his remaining in Ireland with safety. With his cousin, the late Dr. Black of Pittsburg, he landed at Chester, and came on foot to Philadelphia. At Broad and Market they were told they had still a mile to walk before they would reach the city. They were very soon engaged as tutors by the University authorities, and William Cobbett, in his *Peter Porcupine's Journal*, calls attention to the "ominous names"—Wylie and Black—of the new tutors. Afterwards Dr. Wylie became Professor of Languages; he died in 1852. He was also eminent as a schoolmaster, an Oriental and classical scholar, a theologian, a professor of theology, and a leading divine of the Reformed Presbyterian or Covenanter Church. His memory is still most fragrant with all who knew him in school, church and University.

divines and their American disciples; and as the University was at that time virtually under the control of the Episcopal Church, Prof. Allen was put forward as representing this new movement, while Mr. Hare was supported by Low Churchmen. It was owing largely to the vigorous support of Prof. Henry Reed and other members of the Faculty—some of them quite indifferent to all merely theological issues—that Prof. Allen was elected; and in the September of 1845, he entered upon his duties. Dr. Wylie was on a trip to Europe at the time, and it was not until he was holding his first examination at the end of the Christmas term that Prof. Allen made the acquaintance of his predecessor. Their personal intercourse was but slight; he entertained, however, the loftiest regard for Dr. Wylie as a scholar and a man.

During those early years of his residence in Philadelphia, Prof. Allen sometimes officiated and preached in churches of his own communion. From the manner in which he spoke of his preaching we should infer that it was a source of no slight enjoyment to himself, at this period as well as when he was in Vermont. But he was most probably too severely conscientious in thought and too guarded in speech to become popular in the pulpit. As Aristotle enjoins, he was doubtless more anxious to say what *should* than what *would* move his hearers. It is to this that we ascribe the opinion generally expressed by those who remember him in the pulpit, that he was less effective there than in other fields of effort.

In 1847 he made the great change of entering the Roman Catholic Church, of which he remained a devoted lay member all the rest of his life. As a matter of course, the step excited great surprise, and gave great pain to many of his friends. In one case it produced personal alienation and estrangement on the part of a colleague whose friendship he valued. But it is pleasant for those who loved both of the men to know that after a few years the old cordiality and mutual regard was renewed. The circumstances of his conversion are not so well known to the present generation as to make a reference to them needless. The Oxford movement, which took its definite rise about 1833, may be said to have received its first great check in the secession of its real leader, John Henry Newman, in 1845. Even impartial critics of that movement had long predicted such a step as the logical result of the principles of that school. It represented a type of religious thought in such avowed antagonism to

Protestantism, that although it might find a sort of sanction in this or that fragment of the old Anglican theology, especially in its secondary writers, it was evidently not capable of maintaining a permanent position on what was historically Protestant ground. And it was impossible but that the stronger and clearer heads of the party should recognize and bow before the inner logical necessity of the situation, and should find a home with those with whom they were most in sympathy. There were some minor conversions before that memorable October 9, 1845; but from that date the secession became wholesale, and on our side of the ocean even a bishop renounced his place and functions to become a layman of the Roman Catholic Church. How far or how closely Prof. Allen had been in sympathy and agreement with Dr. Newman and his friends, we have no means of knowing. He was certainly known as a High Churchman, and not of the old-fashioned, purely conservative type. Whatever he was he liked to be thoroughly; and he greatly disliked what he thought the slovenliness and lawlessness of the Low Church party of that day. But he thought he found more of profession than of faith in the ranks of his own friends, and he was frequently startled by the wide gap between dogma and practice, until he went where the two were, at any rate, in complete unison. So much we infer from his casual references to the subject, but of course we neither know nor wish to discuss the personal motives which actuated his decision.

The circumstance, however, which led Prof. Allen to turn his attention especially to the subject of the claims of the Roman Catholic Church, seems to have been the conversion of an intimate friend. When he left St. Albans in 1837, he was succeeded in the rectorship of the church by the Rev. Mr. Hoyt, whose acquaintance he formed while assisting Bishop Hopkins in his Academy. They had become close friends, and when Mr. Hoyt in 1845 or 1846 withdrew from his position to enter the Roman Catholic Church, the brunt of defending his act with several of their common friends fell on Prof. Allen. It was a time when polemic feeling was very bitter, and the criticism aimed at the new converts was frequently neither generous nor just. Ever since his residence with the good old priest in Lower Canada, he had been convinced that the popular Protestant notion of the Catholic Church and of Catholics was largely an exaggerated prejudice, and in his zeal for the defence of his friend, he found himself brought more and more into sympathy with his friend's

act. He began an examination of the whole subject for himself, and as a result reached the conclusion that he ought to seek admission to the Roman Catholic Church.

What we have said has had the object of reminding our readers that his conversion was not a thunderbolt from a clear sky, but that it stands related to a great movement, shared in by some of the brightest minds of his time—by men like Ward, Oxenham, Newman, Wilberforce and F. A. Paley. We have not sought to apologize for what he never thought needed an apology; it needed none with any who knew Dr. Allen, and were at all conversant with the purity, the simplicity and the loftiness of his character. All his family, we may add, took the same step as himself. He was baptized by Bishop Kenrick, in the year 1847, and took the name of Bernard in addition to his previous Christian name, probably out of regard for the bishop, who was a great admirer of that Father. For his own part, he used to say, he found great edification in the Fathers, but little literary enjoyment; for their somewhat turgid style did not suit his taste, which was severely classical. But Bishop Kenrick used to retort to this that he thanked God he had been kept from such excessive refinement.

His friendship for Bishop Kenrick survived the bishop's translation to the Archbishopial See of Baltimore, and lasted till his death. As a Catholic churchman, Professor Allen was of the school of Kenrick and Newman, rather than that of Brownson and Ward. He spoke of Newman's *Essay on Development* in a way that seemed to indicate that it had exerted a great influence on his own mind, and he rejoiced to learn that the foremost Catholic theologians of Southern Germany took substantially the same view of the subject. And throughout the recent discussions in regard to the Vatican Council and its decisions, he was heartily in sympathy with Newman, against both his Protestant antagonists and his Catholic censors. He exulted greatly to find that a theologian of such eminence as Monsignor Capel appealed to Kenrick's *Primacy of the Apostolic See* for a just and discriminating view of the Pope's functions; recalling the fact that when the book first appeared, Brownson had—to its author's great indignation—characterized it as an accommodation of Catholic doctrine to suit Protestant prejudices.

As years passed by, and the great qualities of Professor Allen obtained recognition, all dissatisfaction with himself and his course

died away into forgetfulness, and he began to be regarded as the *dulce decus* of our *Alma Mater*. In 1854 his duties were shared with an Adjunct Professor of Languages, Mr. Francis A. Jackson, one of his own pupils being chosen to the place, and in 1864 Professor Jackson was elected Professor of the Latin Language and Literature, which was now finally separated from the Greek Professorship. These changes indicated the intention to give the study of the classics a still more eminent place in the college curriculum, and the first of them was the signal for opposition from both within and without the University. The example of some foreign institutions, and the growing importance of the physical sciences and of modern literature, were urged as reasons why the course of study in the University should be moulded in quite another direction. In this conjuncture, the Trustees desired a written opinion on the subject from each of the professors, which they had printed, but not published. That of Professor Allen is said by all who have read it to be a perfect masterpiece of close and vigorous reasoning, and it no doubt contributed very greatly to the Board's wise decision not to yield to the clamor thus excited. In these days, when the fight between the old and the new education has been practically decided, not to the prejudice of the former, it is not easy to realize how much we owe to the few who fought the good fight for liberal education in the opening days of the struggle.

His later years were uneventful and peaceful. Their tenor was only interrupted by his occasional vacation to Bethlehem (Penna.) or to Worcester (Mass.), his two favorite *sanitariums*,—the former being dear to him for its quiet Moravian ways and its natural beauty; the latter, among other reasons, as being the home of Mrs. Allen's relatives. He generally went to Worcester by the Boston steambot, and he always enjoyed a visit to "the Hub." He was struck with the indications presented even on its public streets of the diffusion of culture, as for instance by the crowds that gathered about the windows of the picture stores. His first visit and his first sight of a city was in February, 1829, when he went thither to see Miss Withington (Mrs. Allen.) It was also the occasion of his first sight of a large collection of books, for the whole collection at Burlington could have been arranged on three or four shelves, and were mostly the gifts of generous authors and publishers. Having a letter of introduction to George Tick-

nor—from Dr. Marsh, we think—he called to present it, and was received by the great historian of Spanish literature with a courtesy he could never forget. On being shown by his host into the library, and finding a large room lined from floor to ceiling with well filled book-cases, he looked around with hungry eyes in a sort of rapture; but he was still more surprised when Mr. Ticknor said—in his low, pleasant voice—that this was but a part of his collection.

In 1867, because of his age and declining strength, he was relieved of a part of the duties of the Greek chair, by the election of Prof. J. G. R. McElroy as Assistant Professor (now Adjunct Professor) of Greek and History. In 1868 he received from the University the honorary degree of Doctor of Laws. In 1872, on the occasion of the removal of the University to more commodious quarters in West Philadelphia, the Alumni of the University, with some assistance from the Board of Trustees, purchased his collections of classical, bibliographical, philological and military works, together with his Shakespeare Library. The purchase of his collection of the European classics was also spoken of, but nothing came of the proposal. Although the price he received was very much less than the books had cost him, to say nothing of the value of his judgment as an expert in their selection, he was not content to hand over to the University the books actually in his possession. The instant he became possessor of a part of the fund, he proceeded to complete and to bind sets of works, notably the great *Bibliotheca* of the Greek authors, published by Didot in Paris, in order that the literary apparatus of the Greek chair might be as complete as possible. His own view was that his library in particular, and that of a city University in general, should be adapted to the wants of the professors rather than of the students, who have abundant access to collections less technical in character. The trouble of the librarian in arranging his library was made an enjoyment by his long and delightful talks about his books. Every volume was a friend, had its history, seemed a part of his life. And it was a still greater pleasure to hear him say that he had even better access to his books in their new home, than when they were in his own charge. He was no precisian in the matter of order, and anywhere within a yard of where he found a book, was a good place to put it back.

In connection with the sorrowful event which attended the opening of the new University building, the sudden death of Prof. John F. Frazer, Dr. Allen was very greatly moved. Prof. Frazer was his senior in the Faculty, had labored hard to secure his election, and while they often differed very widely as to points of University policy, they preserved an unbroken friendship to the last. Each had a high respect for the other, and it was a new revelation of Prof. Frazer's character to hear Prof. Allen's reminiscences of the history of his colleague. Whatever there was worth saying in our notice of Prof. Frazer's death, was derived from Prof. Allen's statements, and it but feebly reflected their interesting character.

For some time back there had been indications of a decline of his bodily powers. He became more and more indisposed to walk out to the University, as had been his custom when not accompanied by Mrs. Allen. During the spring he had been rather seriously unwell, but he seemed to be recovering his strength. On Wednesday, May 24th, he bade us farewell at the University, saying that he had completed his examinations and was going off to New England to stay until near the end of June. On Saturday morning he wrote from Worcester to Mrs. Allen that he had never been better in his life ; but before his letter reached Philadelphia, the telegraph brought news of his death from disease of the heart, after an illness of twelve hours. He was fully aware of his liability to sudden death from that cause. His funeral took place on the following Wednesday, at the Church of the Holy Family, in Philadelphia ; and the Faculty and students of the University united with his family and his friends in the last tribute of respect to the good man and great teacher who had been so suddenly taken away from them.

The following Resolutions prepared by Vice-Provost Krauth, were adopted by the Faculties of Arts and of Science of the University at a special meeting, June 1st :

Resolved, That as a mark of respect for the memory of our deceased colleague, the exercises of the University be suspended until the day after the funeral ceremonies.

Resolved, That the members of the Faculty of Arts and of the Faculty of the Towne Scientific School attend the funeral in a body, and wear the customary badge of mourning for thirty days.

Resolved, That the chair of our deceased colleague in the chapel be draped in mourning until the end of the first term of the coming year.

Resolved, That the following minute be entered upon the record of the respective Faculties, and that it be communicated to the family of the deceased, with the assurance of our sincere condolence with them in the great loss they have sustained.

"The conjoint Faculty of Arts and of the Towne Scientific School of the University of Pennsylvania have learned with profound sorrow of the death of Prof. George Allen, LL. D.; and under a painful consciousness of the loss it involves to them, to the University, and to the world of classic letters, desire to give expression to their cordial affection for him, their admiration of his exalted personal character, and their grateful sense of the eminent services rendered by him in the chair which for thirty-one years he filled with such marked distinction. He wanted no one of the qualities of the finished gentleman, the polished scholar, the efficient instructor. In the class-room he taught with brilliant success, and maintained in it a discipline, almost unique in its perfection, by the simple force of his own well-balanced character, in which gentleness and dignity, strictness and kindness, were in complete accord. His pupils were obedient in love, and could not tell whether reverence or affection predominated in their feeling toward him.

"As a scholar, especially in Greek literature, he combined the nicest accuracy with a broad range of attainment, and his general knowledge was varied and thorough. All his tastes were of the most refined character. There was nothing pure and good in books and in men to which his affinities did not draw him. His judgment was so clear and solid as to possess the highest practical value. He was a wise and safe counsellor. His views of education—the result of large investigation and of ripe experience—were genuinely, not blindly, conservative. His devotion to all the interests of the University was in keeping with his absolute fidelity to his own official duties. He always inspired and always justified a feeling of perfect trust. He took no doubtful place among the faithful and good, who have devoted their labors to the highest welfare of mankind.

"His life was not only beyond the power of calumny, but was lifted above all the occasions which tempt men to it. His years, his long and honorable connection with the Faculty of Arts, not more than his pre-eminent ability and worth, and his place in public regard, give him no secondary position among the historic names which are the glory of our University."

Professor Allen's greatness as a college professor was the greatness of genius. He filled, not his chair only, but his room, by diffusing

around him a subtle atmosphere of culture, and devotion to study, which moulded the minds of the most unpromising students. He abounded in tact and was always in the highest degree considerate of his classes; he laid it down as a first principle that no subject, no text book, no recitation should ever be made a bore. He combined a certain courteous warmth of manner with great evenness of temper, and a perfect control of his class. Nowhere was order preserved in such perfection, or with such slight show of effort. As a teacher he was conscientious and patient to the last degree. He seemed to have no favorites, so earnest was he to do his very utmost for the slowest scholar in the class. It was a sight worth seeing, to observe the perfect self-control of the great Grecian, as some bungling Sophomore was carried through the translation of Hesiod or Thucydides, and actually brought—to his own great surprise—to see into the sense and force of what had been but lifeless words when he hammered at them with grammar and dictionary. But the vivifying influence he exerted on the minds of his pupils was something unique, and greater in value than even his instructions. He infected them with his own enthusiasms, and led them to adopt his own high standard of attainment. Hence his great hold upon their affectionate regard; in every reunion of the classes, the first question asked has always been, "How is Dr. Allen?" And very often it was asked, not only by the well-behaved and studious men, who stood high in everybody's opinion, but by the idle scamps who had wasted their time with other professors, but could not escape his fascination. Of course his genius as a teacher consisted not merely in the natural possession of certain exceptional powers, but largely in their patient and life-long cultivation. *Poeta nascitur et fit*, and genius has been well defined as the power of continual application. It is said by those who observed his whole career, that while Professor Allen was always a teacher of marked ability, his greatness came with ripeness of years, and after a long and strenuous discipline of himself.

Great as was the delight of being Dr. Allen's pupil, it was a still greater to be associated with him in the Faculty. He seemed at once to enter into right and natural relations with all his colleagues. They all loved him, trusted him, and valued his advice, precisely in proportion to the degree of their intimacy with him. If he made any difference among them, it was in the affectionate interest he took in the younger professors, and the satisfaction he showed in their

success. He set before all the example of punctuality and regularity in attention to every duty, and of courteous propriety in their discharge.

As a student and a scholar he was both a complete master of his own branch of knowledge, and a man of the widest and most general attainments. He was saturated with Greek, without losing a wholesome thirst for anything else worth knowing. But Greek was his first object, and he pursued every scrap of knowledge that could cast light upon the interpretation of his text-books, with an enthusiasm that never tired. One case will illustrate this: there was published in Paris, during the French Revolution, a dissertation by a French officer in which he had cleared up a very obscure point in Thucydides' account of the operations of the Athenian fleet in the harbor of Syracuse. Dr. Allen got scent of that dissertation and learned its value some twenty or perhaps thirty years ago, and never ceased to watch for it. He found it at last, some time during the close of last year. And he was just as ready to undertake a long course of study with the same end in view. Finding that it would help him to explain the Greek historians, if he were thoroughly conversant with military science, he collected and mastered the contents of quite a library of military authors, and took rank among experts as one of our best writers on that subject. He contributed several fine papers to the *United States Service Magazine*, which was edited during the war by his colleague, Prof. Coppeé.⁴

As might be inferred from what we have said of Prof. Allen's early attachment to the literary principles of Coleridge and Marsh, his scholarship rose above the mere grammatical and lexical niceties of the verbal critic. In all these, indeed, he was thoroughly at home, and he taught them with a care and a thoroughness which helped his pupils to habits of accurate discrimination, which must prove of the highest value to them in after life. But Greek was to him not mainly grammar; it was *literature*. He prized it for its

⁴ After the appearance of Prof. Reed's valuable annotated edition of Dr. Thos. Arnold's *Lectures on Modern History*, the professor's brother, the late Wm. B. Reed, Esq., said to Prof. Allen: "I know where Henry got all that mass of learning about ecclesiastical matters. That was from you, of course. But I can't imagine where he learned so much about military questions." "You have got matters just wrong," was the answer, "for all that he says on ecclesiastical topics is purely his own, but I helped him to his military knowledge."

palmary examples of all the great forms of literary art; he regarded every Greek text as an artistic whole, informed by an inner unity of purpose, and only to be studied in view of that purpose. And as a corollary to this, he found in every work—whether it was a tragedy, a history, or an idyll—a picture of the Hellenic mind on some of its many sides. His text-books—as he made us feel—were full of a life that men had actually lived, of thoughts that they had really thought, of insights into truth or outlooks upon the world's beauty that had gladdened their lives. Greek life he made real to his classes, by his having lived it, in some sense, himself, and without missing one of the verbal niceties upon which lesser teachers concentrate all their attention, he sought above all to introduce his pupils into the very life of whatever they were reading.

Dr. Allen's eminence as a Greek scholar was fully appreciated by the best judges in that branch,—by such men as Felton, Hadley and Woolsey. But it is a great loss both to American scholarship and to the University, that he has not put on record some of the results of his studies. He had in contemplation to prepare a critical edition of some Greek author—Æschylus, we think, or possibly Thucydides. But his own standard of excellence was so high, that he spent the working years of his life in collecting materials and laying the foundations; so that when the advance of old age relaxed his energies, he sadly gave up the project, as it was now too late. But he did spend his last year's leisure in putting on record some of his discoveries and experiences as a teacher,—not with a view to their immediate publication, but that he might put them in charge of his colleague, the Professor of Latin, for practical use and for completion. The results of his labors are to be sought therefore partly in the pupils in whom he fostered the love at once of letters and of all things noble and of good report, and partly in a valuable and carefully selected library, which is now among the treasures of the University.

He had a true scholar's enthusiastic admiration for the great men of his own profession. Hermann and Bentley, Schweighauser and Dindorf, Stallbaum and F. A. Paley were his *Dii Majores*; and Stallbaum's Plato took rank with him as the incomparable masterpiece of classic erudition, a *κρημα ες αι.* Plato was, even more than Thucydides, his favorite Greek, but was loved more for his exquisite literary beauties than for his philosophical merits. Dr. Allen

was reluctant to concede to the negative critics that any of the dialogues are spurious. "If Plato did not write that," he would say, "who could have done it?" Yet he admitted that the *Republic* at least is hard reading, and once tripped up a Harvard Professor in his eulogy of it by the posing question, how often he had read it through. It appeared that they each had got through it but once. After Plato and Thucydides in his affection came the Greek dramatists; and he was not indisposed to put Paley's editions of them alongside of Stallbaum's Plato. Paley seemed to him the greatest of the living editors of the Greek classics.

As we have said, Dr. Allen's acquaintance with literature was almost encyclopedic. He read with the avidity and the persistency of a scholar of the Renaissance, yet never seemed burdened by his erudition, or weakened in his sympathy for his fellow-men. He also followed the rule of devoting his attention, first of all, to the great books, and keeping those of secondary value for a secondary place. But his taste was most Catholic; it ranged from Paul Louis Courier's witty pamphlets and Ste. Beuve's delicate critiques, to Fenelon's *Spiritual Letters* and Francis de Sales on *Divine Love*.⁵ His keen sense of humor, and his nice appreciation of difference in literary merit made his reminiscences of books and authors very delightful. We may be pardoned for recalling, as our memory serves, some fragments of these conversations. His literary tastes were most exacting; mere excellence of matter did not excuse slovenliness of form, but he especially required a certain masculinity of judgment as essential to good writing. He used to class together a great number of very dissimilar authors as "overgrown boys." Frederick W. Faber and John Stuart Blackie were of the number.

⁵On the first occasion on which we met Prof. Allen outside the class-room, he began to make inquiries about the Covenanter Church, and asked whether we had read *Nuphtali, or the Hind Let Loose, Faithful Contendings*, and other curiously named pieces of polemic divinity, which had emanated from "the poor, persecuted remnant" during the seventeenth and eighteenth century. We had to confess that our knowledge of them did not go far beyond their title pages. He had read all of them when he was living in Vermont, having borrowed them from a gentleman who had been a member of the Covenanter Church, and who had needlessly provoked him to a controversy as to the merits of the Solemn League and Covenant. We doubt whether any living divine of the Covenanter Church knew so much about her oldest literature and her early history.

Of English poets, Shakespeare and Wordsworth always held the first place in his esteem. His contributions to the little volume our Shakespeare Society printed are said by its fortunate possessors to constitute the most precious part of the book; and his Shakespeare library, now in possession of the University, is a fine illustration of his power to select the best and most serviceable books on his favorite branches of study. Delius he preferred to all other editors. Of Wordsworth's poems he was careful to procure the first and therefore the unaltered editions, holding that the poet was the worst of emendators, and that he was not to be trusted in his critical moods with the products of his seasons of true inspiration. He greatly valued the poems of Wordsworth's two eminent disciples, Henry Taylor and Aubrey de Vere, and regretted that so much literary excellence had escaped the attention of most readers.

Robert Browning and his wife, especially the former, commanded his high regard; though, like most readers, he had for a long time been repelled by the rough and grotesque garb in which Browning clothes his thought. He was also a great reader of De Quincey, and as he always read pencil in hand with a view to correcting mistakes,⁶ he was able to contribute very essential emendations to the later issues of the American edition of his works. He rendered the same

⁶We are indebted to him for many slight but not unimportant corrections, made in this way, in his copy of our *Social Science and National Economy*, which he kindly loaned us when we were making preparations for a revised edition. He had read nothing on the subject since he studied J. B. Say at college, and he was pleased to see what a wide range of discussion is taken in later treatises.

Of our faults of style, he was especially severe on the use of *that* for *which*, but after a few days he remarked that he had been looking into Hawthorne again, and found him as fond of the relative *that* as we were. He maintained it to be characteristic of a weak style to be always inserting the relative, and pointed out its continual omission in passages quoted from Swift. As to our abuse of *shall* and *will*, he declared their correct use a mystery too deep for any Irishman to fathom.

While a decided and severe purist, he had no patience with what he called schoolmaster's rules, such as the requirement that no sentence begin with a conjunction. On the other hand, he had as little patience with modern mannerisms, such as that use of *directly* for *as soon as* which some Americans are trying to import. His abhorrence of Webster's Dictionary, in the old editions at least, was most fervent, and he on some occasions appealed to Walker, as an authority never superseded.

service to Hawthorne, and had discovered some notable errors in the printing of one of his novels, only a few weeks before his own death. Of our native authors, he preferred Hawthorne and Emerson to all others. He first met the latter in the days when he made pilgrimage from Concord to Burlington, to sit at the feet of Dr. Marsh. His interest in him was again aroused by the fact that Mrs. Allen was until their marriage a member of Emerson's church, and that they were married by that gentleman. He made it a rule to buy Emerson's works as they appeared, but did not begin reading them till about ten years ago, and found them very delightful. About the same time he took up Goethe, whose works had been the delight of his youth, and found that they retained for him all their old power and charm. He had a very high opinion of G. H. Lewes' *Life of Goethe*, and, indeed, of almost everything that came from that gentleman's pen—an estimate which surprised us.

He was of course an unwearied reader of history. He set a great value on Grote's *History of Greece*, because of the life-like and vigorous method of the book, while quite ready to concede to English critics that Grote had been caught tripping here and there. It was characteristic of his scholarly tastes that he could not abide the American reprint of Grote, in which the notes and excursions are somewhat abridged. He gave high praise to Leckey's *History of Christian Morals*, admiring especially the wonderful range of knowledge and the gentlemanly delicacy and refinement shown in the treatment of topics which Gibbon touched in quite another style. He complained that justice had never been done to the fairness of Lingard; while Froude was his *bête noir* and Macaulay no favorite. But Burton's *History of Scotland* he praised as being such a book as only a professional lawyer passionately fair and truthful could have written. He also spoke very highly of Napier's *Montrose*.

As regards European literature, he had no love for the semi-pagan heroes of the Renaissance, who have again become the fashion of the day; he greatly preferred the manliness and sincerity of Luther to the servility and hypocrisy of Erasmus and his set. He could even enjoy the wit of outspoken Protestants like old Estienne; and Rabelais was one of his favorite books. With French classic literature, both earlier and later, he had, we believe, an accurate acquaintance, which extended to many out-of-the-way books, like old translations of Plutarch. The same is true of the German,

Spanish and Italian classics. Ozanam's work, *Dante et la Philosophie Catholique Au XII^{me} Siecle* turned his attention, like that of many others, to the great Florentine, eventually leading him to the study of the Italian classics; and he was also conversant with Spanish literature. De Maistre was another favorite author, and the *Soirees de St. Petersburg* one of his favorite books. He also pointed to De Maistre's *Essai sur le Principe Generateur des Institutions Politiques*, as an epoch-making work, since it is the first enunciation of the great truth that political institutions are not the product of the reflective understanding, but the outgrowth of the life of the nation. For merely metaphysical literature he had no natural taste. As we have seen, it was first of all the literary and then the theological side of Coleridge's works attracted his attention. He professed no acquaintance with the great masters of speculation. Something he had seen quoted from Schleiermacher induced him to procure his works, but he found them not at all to his liking, and therefore exchanged them for music. He recommended his friends to read Newman's *Grammar of Assent*, because this or that competent judge had praised it very highly; but for his own part, he said, it was too abstract and difficult for him. Father Newman he used to call his hero, and he especially admired in him a certain power of divination, which he regarded as the crown and the glory of scholarship.

Besides his literary pursuits, he had many others in which he took a lively interest. He was, for instance, a very fair mineralogist, Prof. F. A. Genth tells me. He had a decided liking for mathematics, but failed to master the subject because of the insufficient instruction given at Burlington, in his days of study. He was passionately fond of music, and spoke with great interest of the progress of his son, who had devoted himself to that noble art as profession. He himself played on the violoncello until the development of his disease of the heart compelled him to relinquish it. His fondness for the imperial game of chess he evinced by his carefully prepared *Life of Philidor*, (Philadelphia: 1865); and his chess library is one of the most valuable ever collected. One of his half-humorous, half-earnest proceedings was a careful study of the history and physiology of prize fighting, including the special study of a certain idyll of Theocritus with his college classes, at the time when the great match between Heenan and Sayers was the excitement of the day.

He was no mere recluse, devoid of a public spirit and an interest in the social and political movements of the times he lived in. He had been taught from boyhood to regard the courses of events from the stand point once called Federal, and then known as Whig. He cordially detested the institution of slavery, and gloried in O'Connell's rebuke of sundry American Catholics for their servility to the slave power. He was also delighted with the cumulative evidence given by the Spaniard Balmes in his famous controversial work on *Catholicity and Civilization*, that the Catholic Church had been the great agent in the extermination of slavery and serfdom in Europe. He cared for little else in the book, he said. Not thinking it possible to directly attack slavery under the restrictions imposed by the Constitution, and believing that there were indirect agents quite sufficient for its destruction, he took no part with either the Free Soil or the Republican party, until the outbreak of the Rebellion. *But feeling that the friends of slavery had betrayed it by their own folly, and had placed its abolition within the power of the national government, he was urgent and even impatient that the opportunity should not be lost. He sympathized with Gen. Fremont in his early attack on it, and in 1864 would have preferred him to the more dilatory Lincoln for the Presidency. He watched the course of the war with the intensest interest, but was very greatly dissatisfied with the solution of the reconstruction problem, which was finally reached. He was convinced that Thad. Stevens's plan of twenty years' military government for the South would have been more acceptable to the southern people themselves, and infinitely better for all southern interests. In later years he spoke but little of political questions—an exception being an outburst of just indignation at Gen. Grant's *ad captandum* speech on the Public School question.

For a time he acted as resident consul for the Papal States, a position whose duties were not rendered unduly onerous by the extent of our commerce with that power. While he had a high personal regard for the Pope, he thought but little of his subjects. Italians of any sort he could not and would not affect; and he held out stoutly that the report that Pio Nono had called Gladstone "a viper," was one of their malicious lies. He watched with just sympathy and indignation the oppression of German Catholics, and of many German Protestants, by the new German Empire;

he could not understand how Americans, who are so zealous for the principle of toleration, can look on so calmly when anybody they dislike is persecuted. On the other hand he exulted in the utter and final separation of Church and State which exists in America, declaring that the Church had lost far more than she gained by her alliance with kings and princes, whose lives dishonored her teaching. At the same time he pointed to the royal house of Saxony as a dynasty exceptionally pure and noble. He predicted a new era for Catholicism in America, where the grand ideals of the Church may be freely realized among a free people, and without interference from any extraneous power.

What we have said of Prof. Allen as a teacher, a scholar and a citizen, has necessarily anticipated much of what might be said of him as a man and a Christian. So great an intellectual power could not have preserved its freshness and simplicity through so long a life, and won such reverence from all who came within its range, had it not been deeply rooted in his moral greatness. He was not merely a splendid specimen of this or that sort of man; not merely a magnificent scholar in his own branch; he stood above the common level of men in the great qualities common to and characteristic of our race. All that makes the essential difference between a good man and a bad one, lay, as it were, at the very root of his being. The Spirit of God was with him, quickening in him all things excellent and of good report, and giving him favor and honor with all good men.

Those who were of his own communion testify to his careful attention to every religious duty, and his devotion as a Christian. His colleagues, all of them of other communions than his own, would unite in speaking of him as one whose life was consistent with his profession, and abundant in every virtue.

*Post obitum vivam tecum, tecum requiescam,
Nec fiat melior sors meâ sorte tuâ.*

ROBT. ELLIS THOMPSON.

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THE MONTH.

SERVIA has taken her opportunity, and the great struggle between the Osmanlis and their Christian subjects in Europe has begun. It is quite impossible to say how the conflict goes on, but it seems that up to this writing no decisive battle has taken place, although half a dozen great victories have already been claimed on either side and denied on the other. Both the generals seem to fear the result of a decisive battle, and to confine themselves to a straggling war of posts, while their newspaper representatives magnify every advance and every skirmish into a Thermopylæ or a Marathon. The Montenegrins seem to be fighting to their own hand in Herzegovina, and to have done better on the whole than the Servians. The gallant Roumanians, of course, are valiantly staying at home, and laboring to extort concessions from the Porte in return for their indifference to the fate of their Christian brethren. Roumanian valor shines most brilliantly in mobbing Rabbis and massacring Jewesses.

Whatever the immediate result of the struggle, whether Serbia is successful or defeated, we trust that the end of Moslem rule on European soil is at hand. It may not come to day nor to-morrow; Prince Milan may not live to see it. But the permanent infliction, upon a Christian majority, of a rule which is at once anarchy and despotism, and is exercised by a minority alien in faith and manners to all the civilizations of Europe, cannot long continue possible!

The Porte is helping to open blind and unwilling eyes by its policy in the present war. The hordes of Circassians (*Tscherkesses*) who migrated into Turkey when Russia conquered and annexed their territory—all of them Murids, and therefore as full of fanaticism as the Wahabees—have been let loose upon the suspected provinces. Their atrocities are those of the usual Mohammedan "war of zeal;" unoffending villages burnt to the foundations, every man, woman and boy put to the sword, and the girls carried off to Constantinople to the harems of the Pashas.

THE meaning of the revolution in Constantinople clears itself up, as the accounts by letter reach us. The deposition of Abdul Aziz was brought about by a coalition of the two active parties, old and young Turkey—by those who think that nothing is needed except a violent revival of religious zeal, and those who wish to make Turkey keep step with the rest of Europe. The Sultan by his apathy and self-indulgence had managed to give equal offence to both factions, and they united to get rid of him. But the zealots have lost their head and leader, and Turkey its best general, by the assassination of Hussein Avni, and the control of affairs seems to have fallen into the hands of his colleague, Midhat Pasha, who represents the other side of the coalition. As to the new Sultan, he is a mere cipher—a coward and a debauchee like his uncle, and only anxious to pay his debts out of the treasure accumulated by his predecessor.

ENGLAND'S European policy is again become a matter of interest to the world. To keep Russia out of Constantinople is a thing of primary importance in the eyes of all English statesmen, and under whatever pretence their action in bolstering up Turkey is hid, it has no grander purpose. Curiously enough, the possession of her Indian Empire helps to bind England to the Porte. The Sultan as Caliph is the spiritual head or pope of all orthodox Mohammedans, and as all the Indian Moslems, except those of Oude, are Sunnites, the Moslem interest in India expects England to support Turkey. Yet the Crimean war did not prevent the Mohammedans of India from rising in 1857; and when they were charged with ingratitude they replied that England, being herself in spiritual subjection to the

Caliph, did no more than her duty and had no claim to their gratitude.

THE opposition to Queen Victoria's imperial title has taken a new and unforeseen shape. In most cases the passage of a law by Parliament is a final decision of the question; but when Parliament, as in this case, enacts a social usage, it puts it into the power of every dissident to offer effective resistance. Sir Salar Jung, an Indian grandee, gave a great banquet to the Prince of Wales and sundry members of Parliament, and very naturally toasted "the Empress of India." Anybody could have foreseen that such a toast would be proposed, but some were among the guests who had no intention of responding to it. Mr. John Bright kept his seat when the rest rose, and other members of Parliament drank simply to "the Queen." The matter is made rather worse than otherwise by the Prince of Wales asking an explanation, and thereby giving Mr. Bright a chance to publicly assail the new title.

THE Democratic Convention—in spite of the two-thirds rule—has succeeded in doing what the Republican could not do, in nominating the man who is actually the choice of the majority of the party—Mr. Samuel J. Tilden, Governor of New York. His candidacy has long been expected; from the very opening of his Governorship, he was evidently working toward the higher place, and his name has been more prominently associated with the demand for Reform, than that of any other man in prominent office. That his record will bear a searching examination, we do not believe. In the earlier days of the Tweed Ring, when the character of that body as the leaders of the most unscrupulous and unintelligent part of the populace of New York was perfectly understood, Mr. Tilden gave them his very hearty co-operation. He presided (either for a time or permanently) over their notorious Rochester Convention, and spoke in words of compliment of the character of a body the most infamous that ever met to represent the Democratic party. He threw Tweed and his associates overboard just at the nick of time, when the disclosure of their robberies had broken down all party lines, and had united all honest men in opposition to them. An active and zealous politician, he never uttered the word Reform until it became the cry of the day; and although behind the scenes in the politics

of his State, he raised no voice in denunciation of the gigantic abuses and thefts of the party leaders, until *The Times* had published the exposure of their misdeeds. To those, indeed, who regard all Hard Money talk as a certificate of the talker's honesty, Gov. Tilden comes with large authentication; but he accepts a nomination on a platform which demands the repeal of the Resumption Act, and with the certainty that if elected he would, in case of his death before the expiration of his term, be succeeded by one of the most pronounced opponents of Hard Money principles that the country has to show—one of those whom Mr. Tilden denounced in no sparing terms a year ago as advocates of national dishonesty.—Thomas A. Hendricks, of Indiana; and as Mr. Tilden is a man advanced in years and not of robust health, the possibility of such a succession is not to be ignored either by himself or his wing of the party.

THE Democratic platform is well drawn and would make an effective newspaper article; but it is painful to see so much good writing wasted on a document of so little importance. As coming after the Republican platform, it makes just one square issue of principle. It demands, indeed, the repeal of the Resumption Act; but the Republican Platform did not dare to give that act its approval; so that on this point there is no issue. The denunciation of the Tariff is the sole point of absolute difference; and if elections went by platforms, the coming one would be a test of the strength of the Free Trade and the Protectionist parties. But the Free Trade wing of the Republican party, Messrs. White, Schurz, Wells, Grosvenor, Seelye, Bowles and company—with the solitary exception of Parke Goodwin—have given their adherence explicitly to Mr. Hayes, declining to make their especial hobby the issue of the campaign.

Gov. HAYES's letter of acceptance has strengthened his candidacy very notably. It is a well-written, manly document, and the part relating to the South has been especially welcome as indicating that "our next President" will not foster sectional or local animosities either directly or indirectly. Mr. Hayes comes well out of his obscurity, so far; his attendance at our Centennial celebration, and his simple, modest, dignified bearing, have created a good feeling for

him in this quarter. That he is not Gen. Grant's choice is made very evident by the executive proceedings of the month, in spite of that message of congratulation. We refer of course to the removal of several of Mr. Bristow's most trusted subordinates, following his own resignation of the Treasury, and that of Postmaster Jewell. The request for Mr. Jewell's resignation seems to have been made in a fit of petulant irritation, not worthy of a great man. But we are not sure but that as regards the former removals the President was at least justified by circumstances. For some time past both Mr. Bristow and his subordinates seem to have assumed an independence of responsibility to the President, which indicated either a false conception of the nature of their position, or a wish to make political capital at the expense of the Administration. They have set aside those traditions of subordination and deference, which are necessary to the efficiency of any government, and which only the very gravest necessities should be suffered to interfere with. No British cabinet minister would have been so blind to the proprieties, without incurring a wholesale condemnation and receiving his dismissal on the spot; and it shows how far Gen. Grant has forfeited the confidence and sympathy of the public, that very few think of putting themselves into his place, and reflecting what they would do if similarly situated. At the same time it is evident that the President does not, in his management of affairs, give much consideration to the effect of his removals and appointments upon Mr. Hayes's chance of election. He gives all the more emphasis to those disavowals of "Grantism" made by the managers of the campaign.

WITHOUT doubting Mr. Hayes's honest intentions, we lay but little stress upon his promises of reform. They have probably produced their chief effect in making President Grant even more irritable than he was before that letter appeared. After all,

"Of all the ills republics may endure,
How small the part that Presidents can cure,"

while Presidents are elected, as at present, on the nomination of Parties. The Party comes into power behind the man; and it becomes more and more a choice, not between this and that body of principles, nor even between this and that man, but between the *personnel* of this and that party. This seems to us the great mis-

take of some honest reformers, who worked hard to secure the nomination of a reformer at Cincinnati, whereas what they really wanted could only be got by the election of a man who had neither sought nor received any such nomination. And if reform is ever to be a live issue, it must be when there are enough of voters, who will step outside party lines, to elect a President.

THE Centennial celebration of the glorious Fourth was the most satisfactory possible, especially that in our own city. The monster parade on the previous evening was, as might have been expected, a failure. Such displays are not to be extemporized, and unless, like the Italian city republics, we arrange to have a grand civic parade every year, and thus acquire the necessary drill, we need not expect to make a very creditable display of that sort on great emergencies.

The ceremonies of the day itself were most appropriate and successful. Mr. Evarts with us, and most of his brother orators throughout the country, rose above the old plane of braggadocio into a purer and calmer atmosphere of serious thought and patriotic aspiration. The old sneer contained in the very name of a "Fourth of July oration," has lost its force through the greatness of a celebration which called into popular service the ripest culture and the clearest heads in America. The poetry of the occasion was not of equal merit. Bayard Taylor's Ode contains some fine passages, but it is too ambitious in style and too boastful in tone to deserve the highest praise. There is as yet but one American poem intended to be read on such an occasion, that will live as literature; we mean James Russell Lowell's Harvard Ode.

The presence of an Emperor on the occasion but ill made up for the absence of the President. Our own ruler should have felt that his place was at the great focus of the nation's rejoicing. As for Dom Pedro, he goes from among us with a nation's good will; we have naturalized him by universal suffrage, and if ever he should—which is not likely—become "a monarch retired from business," he may count on a hearty welcome back to our shores.

THE removal of Col. Etting from the Committee on the Restoration of Independence Hall and the Formation of a National Museum, which seems to give so much satisfaction to the councilmen and some

of the newspapers, presents itself in a different aspect to those who are interested in Pennsylvania history. For years they have been trying amid many discouragements to develop among the people that sentiment of pride in her past achievements which is at once an indication of the strength in a State and a means of preserving it. They have seen with admiration the memories and traditions of other localities carefully collected and treasured, and those of Pennsylvania to a great extent neglected and forgotten. Conscious of the fact that to her shore came the purest of emigrants during the settlements, and within her borders there occurred the most important and memorable events since, they have seen the histories of the country written from another standpoint, and adopting a different tone. With the coming of the Centennial year, however, attention was to a great extent concentrated here, and it was naturally to be expected that under the impulse thus given much that has been lost would be recovered, and a determination awakened to preserve all that remained. With peculiar propriety at this time Independence Hall, about which the most precious of the national memories cluster, was placed in the charge of Col. Etting, a gentleman whose life had been largely devoted to antiquarian pursuits, and whose acquaintance among historians and the descendants of the revolutionary patriots was extensive. He proved himself the man for the occasion. Under his efficient management the Hall, from being a place where were stowed the unassorted and incongruous materials which chance collected or vanity bestowed, was converted into a national shrine. The dross and rubbish were removed, and their places filled by portraits of those whose memories are associated with the Hall, the chairs upon which sat the Signers, the desks at which they wrote, and, greatest of all, the venerable Declaration itself. A national museum was started to which the descendants of Adams of Massachusetts, and Henry of Virginia, alike loaned their treasures and gave their assistance, and which promised to gather here in Pennsylvania all those tangible objects of patriotic interest that are now hidden and scattered throughout the land. Bancroft came to Independence Hall, read a tablet placed by Col. Etting upon the wall, and re-wrote a part of his history of the United States, restoring to Pennsylvania the honor he had awarded another State, of being the first to refuse importation from Great Britain. In the museum is the only copy in existence of the circular of Wm. Bradford, proposing to print the

Bible in English in 1688, upon which rests the claim of Pennsylvania, formerly admitted to belong to Massachusetts, of making the earliest effort in that direction. These are but instances which show how thorough was the work, and how effective were its results.

To the students of history, therefore, the removal of Col. Etting comes with a shock of pain because it means that the rough, coarse hand of politics is thrust into the bosom of æsthetics, and that there is nothing above its inclination, as there is nothing beyond its power, to rifle and pollute. Nor do we wish to cast any imputation upon the councils who were active in bringing about this result. To them the museum, with its faded uniforms, was but a collection of "old clothes." The sentiment connected with it they did not appreciate—of the events which these old papers described and with which these rusted swords are associated, they probably never heard. They could see no reason why the portrait of Andrew Jackson, the hero of their youth, whose career was run before their eyes, and was therefore familiar, should not be hung in Independence Hall, or any where else. The exclusion from the recent ceremonies of the portly councilman carrying upon his shoulders one-half the responsibilities of a ward, and of the insinuating reporter ready to thrust his attenuated body into any crevice not air-tight—was a mystery they did not understand, and an insult to be expiated only by the decapitation of the offender. It is not to be expected, however, that people of culture will entrust articles which they have come to look upon as their Lares and Penates, to persons who, like the cock of Æsop, prefer corn to jewels. The probabilities are, therefore, that what they have they will keep, and what they have loaned to Philadelphia will be reclaimed. If Independence Hall does not, under the control of the committees of councilmen, relapse into its former condition, it will be because the good that Col. Etting has done will live after him.

"THE trader makes the wars, the soldier suffers by them and ends them," Napier wrote to an English Quaker. We have on hands now one of the meanest of all the Mammonite wars that have disgraced modern history, and because our soldiers have suffered by it, the Continent is working itself up into a paroxysm of rage at our foes as "murderers."

The discovery of gold in the Black Hills, and the miserable want of principle shown by the Government in the defence of the rights of the Indians, within whose reservation those Hills lie, have brought on another Indian war, as anybody might have foreseen. A part of the expedition against the hostile Sioux under the command of our most dashing cavalry officer, Gen. Custer of Michigan, has been outnumbered and killed to the last man by the Indians. All was done according to the code of warfare recognized on both sides; they who were to be our victims simply got the better of us. It was no case of murdering Peace Commissioners, as was done by the Modocs. And yet instead of taking this loss of our gallant soldiers as a just and well-deserved punishment of our national perfidy, everywhere the cry for vengeance is heard, and volunteers offer themselves on all sides "to avenge Custer."

Now we do not belong to the Peace party on this question. We have seen too much of them during their recent Convention, to have any hankering after their company. But we do say that if there be any such thing as a moral government of the Universe, including the United States, then our army has made, through the fault of its superiors in power, an ill-omened beginning of our second century in this richly-deserved defeat. No doubt the existing system of managing the Indians is very bad and inconsistent with itself. Possibly its entire abolition, even without their consent, and their reduction to the level of other citizens, would be justifiable. But to set aside the rights with which we have vested them, in one case only, and in compliance merely with that all-usurping spirit of greed which has corrupted all our national life, is an infamous and scandalous transaction.

THE hope that the South had at last learnt the lesson of equal rights, and was determined to acquiesce in the results of the war as affecting the colored race, has received a severe shock from the people of Hamburg, S. C. A quarrel picked with the captain of the colored militia, an armed white mob surrounding them and without legal authority demanding their weapons, the cold-blooded murder of five of their number after their surrender, and all this upon no provocation except some insolent words from the militia captain, make a wretched record with which to open our "era of good feeling." It would be incredible, were it not that we have the story

from the ringleaders of the white mob, and find that all the facts are confessed, and no sufficient excuse for it is offered.

The Democratic majority in Congress, and especially its Southern members, will show their wisdom in doing their very utmost to secure the punishment of these murderers. For unless the Southern Democrats wash their hands of all complicity with this atrocity, Mr. Tilden's chances with the Northern States are worth little. "Here," it will be said, "on the very eve of a Presidential election, and during the very celebrations which were to see the end of all race and sectional jealousies, amid all the considerations of patriotism and of prudence that might have been expected to restrain them, these Southerners cannot but let all the world see what is the deepest instinct of their natures as regards the colored man. It is not Morton or Blaine that 'shakes the bloody shirt' in our faces this time, but these intelligent and respectable white citizens of a State so recently rescued from bad and corrupt government by the wisdom and public spirit of great masses of the negro voters. If these things be done in the green tree, what shall be done in the dry, when a Congress Democratic in both Houses and a Democratic Executive have got control of the government?" And to all this the entire record of the Democratic majority of the present House gives great emphasis. Never did any legislative body begin its sessions with fairer chances of winning golden opinions; but it has steadily thrown away every chance, from the very opening of its session. It would have been utterly impossible to reunite the divided segment of the Republican party, as they have been in support of Mr. Hayes, had not the House of Representatives convinced everybody that the Democrats, like the Bourbons, learn nothing and forget nothing.

THE OPERATIONS OF OUR BUILDING ASSOCIATIONS.¹

I SUPPOSE it will be admitted that the best proof of the practicality and advantages of Building Associations would be to show that in actual operation they have accomplished the purpose of their organization. Success in a system so dependent upon separate individual efforts, and requiring the patience of years, must be a conclusive test of merit.

To furnish such proof is my object in discussing the extent of their operations in Philadelphia. In doing so I shall not attempt to trace their origin, or give an account of the difficulties they have met and overcome, but I shall limit myself to substantial results as they now appear, and then I shall draw your attention to some local advantages which they possess in Philadelphia.

Previous to the year 1849, in comparison with their subsequent history, Building Associations in Philadelphia were inconsiderable, and their operations limited. As their business was then conducted in the name of Trustees, and no record has been made of unincorporated associations, the number of associations before that time cannot be ascertained.

In 1849 the Weccacoe—the first incorporated Building Association—was chartered. As corporations, the associations possessed greater power and vitality,—and from this date they rapidly increased in number and activity. Charters to Building Associations were granted by the Court of Common Pleas of Philadelphia, and by the State authorities under the act of 1874 regulating corporations. Charters thus granted to Building Associations are recorded in the office of the Recorder of Deeds, and from this source I am enabled to furnish their number. The records there show that from Jan. 1, 1849, to Jan. 1, 1876, 672 were incorporated. The number by years is as follows:

¹Paper read before American Social Science Convention, Philadelphia, May 31, 1876.

1849	1	1859	14	1869	65
1850	20	1860	8	1870	55
1851	24	1861	5	1871	56
1852	20	1862	2	1872	63
1853	14	1863	11	1873	72
1854	19	1864	7	1874	46
1855	4	1865	9	1875	25
1856	15	1866	21		
1857	13	1867	28		
1858	5	1868	50		
				Total,	672

In addition during the same period there were incorporated by special acts of Assembly,

Making the total number of Building Associations incorporated from Jan. 1, 1849, to Jan. 1, 1876, for operation in the city of Philadelphia,

20

692

Some associations are still conducted without incorporation. To what extent such associations exist cannot be ascertained. Some experienced men believe their number to be from 50 to 100, but the uncertainty will prevent me from taking them into consideration further than by referring to them in this general way.

No records show the number of associations that have actually carried on business. The proportion of those which either never went into or failed to continue in operation must be very small. The application for a Building Association charter in itself indicates the existence of members and an organization ready for business, and as subscriptions for capital are in the shape of monthly dues, the difficulties which generally attend the organization of a business corporation do not exist. Six per cent. of those chartered will, I am satisfied, more than cover all abortive associations, and when deducted will leave at least 650 incorporated Building Associations in actual business in Philadelphia from Jan. 1, 1849, to Jan. 1, 1876.

It is the universal opinion among Building Association men, that ten years is the average period for winding up an association. On this basis it will be no difficult matter to approximate the number wound up and still in existence on January 1st, 1876. The number incorporated during the ten years preceding gives the number still in operation, and the number incorporated before that period, the number wound up. Not including associations created by special acts and unincorporated, and making the allowance of six

per cent. for abortive associations, the result indicates that on January 1st, 1876, 200 associations had been wound up, and at least 450 were then in active operation.

The nominal capital of a Building Association is generally \$500,000. It is nominal in one sense, but it is by no means fictitious: a large nominal capital is requisite for the plan of operation; and the greater part of it, perhaps the whole of it, may be actually paid in by the time the final settlement is reached. No facilities are afforded, however, for estimating the capital actually paid in, but capital thus explained, and compared with the number of active associations, will convey some idea of the immense amount of money used and accumulated by the Building Associations.

Loans on mortgage furnish another and more certain indication of the extent of their operations. From January 1st, 1849, to January 1st, 1876, there were recorded in Philadelphia 36,129 Building Association mortgages. They appear by years, as follows:

1849	5	1858	642	1867	998
1850	104	1859	507	1868	1565
1851	498	1860	692	1869	2246
1852	842	1861	386	1870	2605
1853	932	1862	353	1871	3133
1854	1082	1863	271	1872	3477
1855	1169	1864	409	1873	3557
1856	988	1865	400	1874	3727
1857	813	1866	630	1875	3836

—a total of 36,129.

To ascertain the amount of each one of these mortgages from our records would involve a labor too herculean for me to attempt. The enumeration I have given has been taken from the Indices. To ascertain the amount of each would require the examination of the record of each one of the 36,129 mortgages. But it is safe to say that Building Association mortgages average \$2,000 each. Good authorities agree on this.

On this basis the 36,129 mortgages represent loans by Building Associations, amounting to \$72,258,000. To arrive at the actual amount paid to the borrowers on the security of their mortgages, premiums for loans must be deducted. As we have taken ten as the average number of years for winding up Building Associations, we will deduct 30 per cent. as the premium or discount paid for the loans.

By calculation, it can be shown that loans at a premium of 20 per cent. will wind up an association in ten years. In actual experience, I am informed, a Building Association winding up in that time, will require the premiums to be nearer 30 per cent.; and with fair management and ordinary risks 30 per cent. premiums will wind up any association in ten years.

Deducting therefore 30 per cent. from the \$72,258,000, the net amount paid to borrowers by Building Associations on these mortgages is at least \$50,580,000.

Many will say that the capital turned into real estate through their agency must be larger than these loans, from the fact that the Building Association merely aids, as the loaner upon other mortgages does, but in a greater degree, and does not furnish the full amount necessary in purchasing real estate; that other capital which, without its help, would be useless for the purpose, is thereby directed into the same course, and aids those who could in no other way become real estate owners. There is much truth in this. The Building Association mortgage is generally the second incumbrance, and the amount loaned is seldom beyond 50 per cent. of the value of the property; and in this way it can be shown that about \$100,000,000 of real estate has been acquired with aid of Building Associations in this city.

However correct this may be, and I believe it to be so, at present I go no further than saying that \$50,580,000, at least, has passed through Building Associations into real estate in this city since 1849.

To go beyond this would not be safe without further data, and to avoid the possibility of excessive figures, I have at this point limited the estimate to the amount going directly from the Building Associations. Nevertheless, what has been accomplished by their aid must not be lost sight of in any consideration of the subject.

Deducting from the 25,774 Building Association mortgages created during the past ten years, the proper per centages in each year,—on the basis of associations winding up in ten years,—the number of mortgages remaining unsatisfied on January 1st, 1876, would be about 17,282, and the mortgages paid off and satisfied by associations winding up, about 18,847.

During 1875, 3,836 Building Association mortgages were created,

representing loans of \$7,672,000, for the year, or at the rate of \$639,350 monthly. Loans on mortgages form a large part of the payments by associations, but in any estimate of such payments, withdrawals must also be considered. Large amounts were withdrawn in 1875, and they must have exceeded the total amount of premiums for loans. The monthly payments of dues and interest into Building Associations in 1875 cannot be less than the full amount of loans without deducting premiums, and some idea can be formed from these figures of the amounts thus paid. This would average the monthly payments of the 450 associations in active operation at over \$1,400 monthly, and indicate that the receipts of all the Building Associations, for the year 1875, exceeded \$7,672,000.

That such payments, at all events, cannot be less than this sum, appears by comparing it with the dues and interest paid in by borrowers. The unsatisfied mortgages on January 1st, 1876, were about, 17,282, as we have shown. The dues and interest on these at \$240 each yearly on a principal sum of \$2,000 each, make the total dues and interest paid in by borrowers alone during 1875, \$4,147,680.

We have no safe guide for the amounts paid by non-borrowers, but when we consider that were the same number of associations created each year, and were an association to wind up in ten years, the average of all borrowers would be the number of the borrowers in five years, it can hardly be concluded that the dues and interest of borrowers in that time will much exceed, if at all, the dues of non-borrowers.

I consider \$7,672,000 to be a low estimate of the payments to associations during 1875. Some Building Association men, without any basis other than their experience, have estimated the payments to have been about \$9,000,000 or \$10,000,000; but, until the precise amount can be ascertained in a better method than that I have adopted, I shall consider it much safer to fix the amount of such payments during the year 1875 about the gross amount of the loans in the same period.

Extensive as the transactions of Building Associations thus appear, their extent will be much more appreciated when considered and compared with transactions somewhat analogous. The number of their mortgages have the past five years formed a large proportion

of all mortgages made in Philadelphia. In 1863 they formed 6 per cent.; in 1870, 25 per cent.; and in 1873, 31 per cent. of all the mortgages recorded in those years. The increase in the proportion from 1863 has been gradual and steady, and apparently affected only by the business stagnation of 1874 and 1875. From the year 1863 the comparison by years is as follows:

	<i>No. of Bld'g Assn. Mortgs.</i>	<i>No. of all Mortgs.</i>	<i>Proportion of B. A. M.</i>
1863	271	4104	.066
1864	409	5121	.079
1865	460	4682	.098
1866	630	6401	.098
1867	998	7344	.135
1868	1565	9056	.172
1869	2246	9788	.229
1870	2605	10606	.255
1871	3133	12984	.233
1872	3477	13490	.257
1873	3757	11958	.314
1874	3727	12380	.301
1875	3836	13899	.276

Forming so large a proportion of all mortgages in the past two years—two years of depression in trade and consequently severe ones for the laboring classes—the question will naturally be asked, What proportion of foreclosures upon all mortgages did the foreclosures on Building Association mortgages during the same period form?

The answer of many will be that as the money loaned by Building Associations has been at high premiums, as the mortgages of associations are generally second encumbrances, and the laboring classes who constitute the main body of the associations have suffered from want of employment, the proportion must undoubtedly be greater. Such an answer would be plausible, and with the reasons given perhaps convincing, were we without the means of answering the question correctly.

It appears from the Real Estate Execution Docket of the Sheriff of Philadelphia that in 1874 the whole number of sales by him upon foreclosures of mortgages was 1141, while only 203 of that number, or 17.79 per cent. were upon Building Association Mortgages. In 1875 the whole number of sales was 1284, while 230 of the number or 17.91 per cent. were upon Building Association Mortgages. Con-

sidering that during the same period Building Association Mortgages formed respectively 30.10 per cent. and 27.60 per cent of all mortgages created, the result is greatly in favor of the Building Association Mortgage. The same figures also show that the foreclosures on Building Association Mortgages formed but 6 per cent. of the number created in the same year, while upon other mortgages the proportion was 10 per cent.

I should like to state with precision the number of stockholders in Building Associations in Philadelphia at the present time, but it is impossible to give anything better than an estimate. Good authorities say that Building Associations will average 150 members each. The estimate is a fair one, and will make the whole number 67,500. You can safely assume them to be at least 60,000. This cannot possibly be out of the way, when you consider that the average number of mortgages held by each association is thirty-eight. You will remember that the 450 active associations had 17,282 unsatisfied mortgages on January 1, 1876. Of course, associations a year or so old will have less than thirty-eight, while those nearer their expiration will have more. Thirty-eight borrowers out of the 150 members, during the average period of the existence of the present active associations, that is five years, are not too few, according to the experience of Building Association men.

By the census of 1870, the persons in Philadelphia having occupations were 217,685. Allowing for an increase in proportion with the increase of population, the members of Building Associations would form over one-fifth of all persons having occupations in Philadelphia.

It would be gratifying if exact figures in this instance could be obtained. But nothing better than an estimate can be furnished, and upon no other data than I have given. I have avoided estimates as much as possible, and have not given any except where the necessities of the subject have driven me to them. If they are found incorrect, the error is on the safe side, and not because they are too high.

If the estimate of the average premium is too great, the more money must have been received by the borrowers, more paid into the associations, and more associations must now be in operation. If too low, then associations have been more profitable, and fewer outstanding mortgages exist. If the estimate of membership is too

high, the proportion of borrowers has been greater. None of the estimates, however, can affect the different tables taken from records, and no estimate is made except to explain what the tables show.

The great difference in the amounts on deposit in May, 1875, in the Saving Funds of Philadelphia and those of Boston or New York city, confirms the extent to which Building Associations in Philadelphia have attracted the wages and savings of the working classes. These amounts were:—in the Saving Funds of Philadelphia, \$14,776,289; Boston, \$79,612,267; New York City, \$282,711,406.

After years of experience, the working classes of Philadelphia have found, for their purposes, Building Associations a better means for saving. Saving Funds, beneficial as they are in many respects, allow an interest not over five per cent. on deposits, while Building Associations, in saving a rent of ten per cent., pay at least five per cent. more, besides furnishing a fixed home. No wonder then that Building Associations in Philadelphia have attracted the large amounts which would otherwise be in Saving Funds.

Speculation or mismanagement has not shaken confidence in them. Not a single association is found on the long list of bankruptcies in the bankrupt court of this district. Clerks in the court offices whose experiences cover the past fifteen years, remember no writs of sequestration or execution against a Building Association. Mr. Fletcher, who was for twenty years in the old district court office, remembers but one, and that was a writ of sequestration issued about the year 1858.

When it is considered that on January 1, 1876, the full value of all real estate in the built-up portions of Philadelphia was \$511,129,194; that the full value of all real estate, improved and unimproved, was \$583,516,129; that since 1849 Building Associations have put directly over \$50,000,000, and carried indirectly at least an additional \$50,000,000 into dwelling houses, it must be concluded that Building Associations have materially aided in the growth of the city.

How could it be otherwise, when over one-fifth of the persons having occupations in Philadelphia are members of Building Associations; and certainly one-tenth, and most probably one-sixth, value of all the real estate assessed, at city rates, and over one-fifth of the

dwellings in that city—36,129 of 143,936—have been acquired by means of Building Associations.

Since 1870, 31,479 dwellings have been built in Philadelphia, and during the same period 20,535 Building Association mortgages were created. While Philadelphia was building the 31,479 dwellings, New York built 3,112. To-day Philadelphia has 143,936 dwellings, New York 67,156. Since 1870 Philadelphia has built more dwellings than were contained in Boston, Cincinnati or Washington in 1870. The census of 1870 shows Boston had then 29,623 dwellings, Cincinnati 24,550 and Washington 19,545.

Is not Philadelphia indebted to Building Associations to some extent for the separate homes afforded every family in its limits, for the prosperity and comfort of its working classes, and for the fact that it is to-day the healthiest city of its size in the world? Is not all this the best, the very best evidence of the practicability and advantages of Building Associations?

Successful as they have been in Philadelphia, it by no means follows that success will attend their introduction elsewhere. To obtain like results, the same conditions that here surround them must also be afforded.

All over the city are thousands and thousands of small, comfortable dwellings, with bath-rooms and kitchens, supplied with hot and cold water. They are occupied by their owners. A few hundred dollars and the aid of the Building Association have made them their own landlords. Such houses are worth from \$1,500 to \$2,500, and would rent for \$12.50 to \$25 a month. Moderate as the rent would be, the owner finds that after he has borrowed from the Association, the sum total of his taxes, dues, and interest does not exceed the rent he would otherwise pay, and that in a few years his payment to the Association will cease.

Go where you will, the occupant is not far from the shop or mill of his employer. The convenience of the house in this respect was the main reason for its selection. The expense and delay of distance, to say nothing of inconvenience, tend to bring the laborer and his place of employment near together.

Four car fares daily, or \$8.00 a month, will overcome any advantages street railways can offer in reducing distance in Philadelphia. The working-classes there, as everywhere else, live as near as they conveniently can to their place of employment; and yet they are not

crowded together, but are spread in every direction over the whole city. The compact portion of the city, not including Frankford, Germantown, Manayunk and Falls Village, covers an area of not less than fifteen square miles. Her paved streets are 650 miles in length. The water-pipes laid in them are 628 miles, and gas mains 612 miles in length. And this great area of buildings is still spreading out over the suburbs at the rate of 5,000 or 6,000 new buildings annually, or about one square mile every two years. Occupants seem ready for the dwellings as soon as finished.

Natural advantages and business interests have combined to produce this result. Commerce and manufactures have here selected the localities best suited to their needs, and have not been driven into narrow or particular quarters. Sites convenient to railroads and water, and to the business center of the city, fitted for the most extensive operations, are found in every direction.

Including both sides of the Schuylkill, and omitting League Island, the wharfage line from Chestnut Street Bridge, on the Schuylkill, to the Reading Railroad wharves on the Delaware, is twenty miles in length. Its capacity for shipping is unlimited. Every interest along it is reached by railroad, except that part on the Delaware front between Dock and Willow streets, of less than a mile; and the most distant point upon it is but four miles from the new public buildings. The marble wharves are near Chestnut Street Bridge. The oil wharves are at Gibson's Point and Point Breeze, on the Schuylkill, and at Greenwich Point on the Delaware. The grain-elevators are at Girard Point and at Washington Avenue on the Delaware. The lumber yards, engine works, and ship yards are near each other in old Kensington, on the Delaware. The coal wharves are at Greenwich Point, Windmill Island and at the Reading Railroad wharves, all on the Delaware. Separate as are these different interests from each other, they possess unequalled facilities for commerce, while the short distance from the heart of the city causes no inconvenience. The tendency of the employee to be near his place of employment keeps the working classes engaged by them spread out, instead of crowded together, as is generally the case in other commercial cities.

Manufacturers have had as much freedom in the choice of their localities. Every ward possesses some large and important manu-

facturing interest. Cotton and woolen mills, carpet weavers, machine shops and foundries are in all directions. Railroads with their branches, forming a net-work over the city, reach all sides and leave untouched but a small area between the different freight depots in the center of the city. Facilities for transportation are afforded the manufacturer wherever he may choose to locate. He selects his site here, more for the space obtained, and its cost, than for its locality. If he goes to a built-up portion, he will obtain in the neighborhood all the labor he may need. If to the suburbs, labor immediately comes about him, either to dwellings put up by himself or by some enterprising builder.

The main interests of Philadelphia—commerce and manufactures—require no concentration, either from restriction to particular localities or the necessity of business intercourse. In other cities, one or the other, or both of these circumstances, have crowded all interests together. Where some particular neighborhood alone is suitable for the purpose, or where dealings are more immediately together, this cannot be avoided. In such cases, concentration is a necessity. In Philadelphia, for these interests, it would not even be a convenience. On the other hand, it would be detrimental, in increasing the value of localities, both to the employer and employee. Be this as it may, neither have crowded together, and land for business and dwelling purposes, from its ample supply, has been kept at moderate figures.

Land about the city has never been high. The extensive outline of the built-up portions of the city brings much land into the market ready for improvement. The opening of streets and approach of buildings, although increasing the value of unimproved land, add greatly to its burdens. There are always more sellers than buyers; and if the buyer buys to improve, he can always obtain land on favorable terms. If bought on ground rent, or upon mortgage, the purchase may require no cash, and the seller may even agree to advance part of the money requisite for the operation. In this way, and perhaps, too, from the effects of the Mechanics' Lien Law, builders of little means erect hundreds of houses at a time, and much more cheaply in that way than by building single houses.

Lumber for building purposes is as cheap in Philadelphia as in any of the large cities. Brick clay of superior quality is found every-

where about the city, furnishing more brick than is required for local purposes.

The house is built under these favorable circumstances, and when finished can usually be sold subject to the original ground rent or mortgage. At this point the Building Association steps in and aids in the purchase. The combination of these different elements has made the price of land and expense of building lower in Philadelphia than in other cities, and the moderate cost of a dwelling has made it the successful field for the Building Association.

The average value of a building in Philadelphia is \$3,700, in New York, \$10,500, and in Boston, \$12,120. The total assessment of all the real estate in Philadelphia is \$583,516,129, and this is the actual full value. Her dwellings number 143,936; stores, factories and other buildings, 11,658; making the total of buildings, 155,594. Boston, with her 46,111 buildings, has her whole real estate valued at \$558,769,500. New York has 84,127 buildings, and her real estate is assessed at \$883,643,545.

We cannot doubt that this low average in Philadelphia has been brought about from causes other than the operations of Building Associations, when we find that the average of each building in Philadelphia would not exceed \$4,900, were we to deduct from the number of all buildings one building for each Building Association mortgage, and make no change in the value of real estate. That is to say, from the 155,594 buildings deduct 36,129, one for each this Building Association mortgage, which will leave 119,465; with divide the value of all real estate, and the result will be \$4,884—showing conclusively, materially as Building Associations have aided in the increase of the city, the low price of real estate or buildings is not *entirely* due to them. Thus it is that in Philadelphia, a working man out of his wages is enabled to purchase a home, and perhaps save a little besides. When he buys he has no load to carry; the effort is within his means.

Had the situation of the city or business interests driven the people into the crowded districts—had the price of land or the cost of building been high—what has been done, could never have been accomplished. The workingman would have been as he is elsewhere. Building Associations would not, they could not have existed. No special protection has been given them, no special effort has been

made to push them; but unaided, separate and scattered, suited only to the time, place and circumstances, have they flourished. And that, too, without the aid of the capitalist, and solely because the working classes could here obtain comfortable and convenient dwellings at moderate prices. Had prices been beyond their means, beyond what could be spared from their wages, Building Associations would have been useless.

Wherever conditions similar to these which have given Building Associations their strength and vitality in Philadelphia, are in some degree presented, there then to a like extent Building Associations can be introduced and be successful. Wherever such conditions are wanting, there Building Associations will be useless; and any attempt to force their growth must end in disastrous failure.

JOSEPH I. DORAN.

ANATOMY AND MODERN ART.

DURING the period represented by classic art, anatomy existed as a force in the art idea. At no other time in the history of intellect has the conception of the beautiful been so purely the outgrowth of its existence in nature. Beauty in its ultimate form, embodying both the promise and reality, found a response in this young civilization, and was reproduced in the creative effort. The conception and aim of art was based upon the purest realism. Nature furnished the weft, the ideal giving form and color to the warp of the completed art fabric. Nature was deified, out of which grew the polytheism of Greek life. In every conception of the super-human was this aesthetic faith in Nature realized; and out of the depths of the sea, and earth, and air, trooped gods and demigods, demons and nymphs, embodied in the Greek's realization of the pure and beautiful—the human form. Not alone in form was the Greek type represented in the god-life. All that existed as a reality in human love, hate and ambition, was reflected in the classic conception of the deity. The bodily and spiritual attributes of humanity served as the measure of the super-

human. In the perfection by which this realization was attained do we find an expression of the civilization of that age. Mythological representation approached perfection in the human type in the same ratio by which civilization became perfect. We need but look at the forms that the polytheism of Egypt and India assumed, in order to know how intensely the Greek type existed, and how purely it was drawn from the realities around them. At no time in these older semi-civilizations did mythological art content itself with the simply human in form and emotion. This was less the fault of means than of the impossibility of conceiving the divinity of their faith embodied in the image of man. Yet this embodiment is the beginning and limit of art. Their civilization was only perfect enough to reach the idea of grandeur and power by the colossal. What was therefore perfection in the severe realism of the Greek, became the grotesque in the half-formed art ideal of Egypt or India.

It is difficult for us to conceive of the process by which the Greek type in the human form assumed such a potential existence in their art. The apotheosis of the human body, which seems such a spontaneous outcome of the ordinary emotions and circumstances of their life, is impossible for us. Our civilization is either less tangible, because less rooted in Nature; or is more perfect, and therefore less dependent upon its symbols, so that what was necessary for the Greek is repugnant to us. Through the centuries which have followed the acme of Greek culture, the impulses and processes of art have survived, but are translated by other emotions. In no other way is the difference between the two ages so clearly shown as in the change in the art motives. The inspirations which caused Phidias, Polycleitus, Apelles and others, whom we know so dimly, to elaborate their ideals, have ceased for us. Polytheism, and heroes half deified, and the Hetaeræ now exist in the form of a monotheism unattainable in art, with a respect for achievement that never passes the limits of admiration, and a feeling for female beauty that never approaches artistic enthusiasm. Aesthetic emotions and the power to give them expression have their phases of genesis which keep pace with all the factors of civilization.

If we are to understand the manner in which the human form became the Greek type in art, we must search among the people who stood in relation to this ideal as cause and effect. But, there

were conditions in their lives which we can never understand; not the broad features which we know of and can contrast with our own civilization, but half-tints, too subtle to outlive the ages which have passed, and which contributed so largely to the general effect. By knowing the relations of anatomy to this older art, and then tracing the change in the art motive between then and now, we can gain a correct knowledge of the bearing of anatomy upon modern art.

One of the most striking contrasts between classic and modern culture is shown in the lessened value assigned by us to physical training. The development of the body in the direction of beauty and fitness, is tolerated rather than encouraged by our higher institutions of learning. With the Greeks, athletics was a part of aesthetics. In the arena of physical contests was concentrated the enthusiasm of the nation. Boxing, wrestling and running offered to the victor national honors. Contrast with this the status of boxing among the moderns. There is now no place for it in legitimate physical culture. By the intense feeling of so-called respectability which dwarfs and hampers many of the efforts of art, and suppresses many of the purest aesthetic emotions, it is degraded to the level of the dog-fight, and is termed degrading. The few among us who have cultivated the art, are hunted down like thieves by the police. The gentleman who would openly encourage it and attend its exhibitions would soon lose social caste, and be commonly spoken of as a patron of vice and immorality. Yet there is no exercise which so thoroughly trains the eyes and hands, or so completely brings into play all those parts upon which depends physical beauty, as the art of boxing. Human nature in many of its characteristics lies too deeply to be wholly obliterated by prejudice or the artificial restraints of society. This is strikingly illustrated by the thrill of excitement which runs through all grades of people on the occasion of some contest between great champions of this classic art. The cultivated and uncultivated alike feel an interest in contests of this kind which is impossible for them to suppress. This exercise did not prove degrading in ancient Greece; and it has become so in modern times by that portion of society which creates public opinion having confined its cultivation to the abandoned and vicious. We must, however, have regard for the fact that the time has passed when this exercise can become an

element in art culture. Change in the art motive, caused by the needs and emotions of modern life, has idealized other types. Our civilization has created other aims for ambitions; crowns may no longer be won upon Olympic fields. The pulses of the national life throb to other than aesthetic emotions which originate from the sight of human beauty and vigor. The exercise of these manly sports, which gave such a coloring to the Greek character, was the source from which they drew their ideal. They were educated as a people to regard such physical qualities as those which allied them more nearly to the gods. While to their gods they ascribed their own vices and emotions, the humblest Greek might not aspire in vain to equal the object of his worship in purity of thought and heroism of conduct. The qualities which were truly god-like and untainted by earthly passions were those of physical power and beauty. They symbolized in their mythology those attributes which existed in their art ideal. They deified the human form and developed and nurtured its capacities for power and beauty, until at no other period in the history of the race, have the grandeur and might and beauty of man attained such a state of perfection. There is no doubt but the high state of culture to which physical training was brought served to develop a race of men of whom we can form but an imperfect idea. At long intervals we see among us men sufficiently developed to demonstrate what is possible in muscular growth. But the modern athlete is a half-trained man, while his Greek prototype was a wholly developed one. In order that the classic athlete might earn the highest honors in the Olympic games—the *πρωταθλον*—he was obliged to become the victor in leaping, running, throwing the quoit and javelin, and in wrestling. Afterward boxing and wrestling were included in a class together, the victor winning in both exercises against all comers. It is impossible to conceive of a severer test for human endurance, or of one requiring more perfect training and natural qualities in the combatants. When we consider that the victors in these magnificent contests were naked, it is not surprising that human beauty of form existed as the basis of the Greek ideal in art. Here also was matter to inspire an enthusiasm, which under their mythology could reach nothing short of deifying the qualities of the object, and realizing by means of the subtle and masterly

idealization of the artists a majesty, sublimity and repose which art in marble has never since assumed. By means of these nude contests, every aesthetic Greek became an art critic. He was educated in anatomy in the same school as the artists. The forms and proportions of the victors in the games were accurately measured and recorded, and existed as standards to guide the judgment of the public, as well as for the execution of the artist. We have an anecdote left to us which well illustrates the rigid materialism of the Greeks, and the correct notions they had formed of anatomy as the vehicle of the ideal. Socrates visiting the statuary Clito—for the literary man loved to lounge in studios in those days as well as in these—said to him: “We all know, Clito, that you execute a variety of figures; some in the attitude of the race, and others in the several exercises of wrestling, of boxing, and of the pancratium; but with regard to the quality which particularly captivates the soul of the spectator—I mean their correct resemblance to the life—how is this property wrought into your productions?” The artist hesitated for a reply, and Socrates, catching the clue from Clito’s hesitation, quickly answered his own question. “Is it not in endeavoring to imitate the configuration of the bodies of those who are actually engaged in these exertions of skill and activity that you succeed?” “Without doubt,” answered the artist. It is evident that the philosopher had visited Clito with a theory of art idealization of his own, roused possibly by a criticism of some work of art which had led to a hot debate with his friends; for Socrates resumed in an argumentative way, “Well then, you study under the various gestures and attitudes of the living body, what parts are drawn up out of their natural situation, or carried in a contrary direction below it; some which undergo compression, others an unnatural elevation; some which are thrown into a state of extension, others which become relaxed; all this you imitate, and hence you produce that fidelity, that accuracy which we admire.” The proposition received the assent of Clito. “And the expression of the passions again, how great a pleasure does this produce to the spectator.” Again the artist acquiesced. “Then, those,” pursued Socrates, “who are in the actual conflict of the battle, are they not to be represented as bearing menaces in their eyes, while satisfaction and joy should sit upon the countenances of the victorious?” “Very true.” Then the philosopher defined

his dogma of art. "It is then equally the business of the statuary," he said, "to transfuse into his productions the workings and emotions of the mind."

But we must in our age translate anatomical beauty into other expressions than those of antique types. The Olympic arena, with its statuesque and god-like mortals, nude before the eyes of an almost adoring multitude, may never exist again as a school for the aesthetics. The source of the beautiful in this primal human type, must ever exist as a dream to the modern artist. He may study it, as it is preserved to us in the relics of classic art; but the enthusiasm which comes from contact with its living object, and the feeling of pride and patriotism in the motive which calls it into existence, can never exist. Human anatomy for the purpose of the artist is as much a hidden thing as when its study was under the ban of the inquisition. It is not dead anatomy, but living, which the artist needs for his work. From such a source was it that the classic artist drew knowledge and enthusiasm. The Grecians burned their dead and the art of practical anatomy was not practiced among them. But from these living models they had the means of learning the nature and proportions of bone, muscle, and tendon. This was all the anatomy that was necessary; the rest was idealization. But they could get much nearer the truth than it is possible for us without the use of the *cadaver*. They studied the development of the muscle in the young athlete, but when he had become old, this man of thews and sinews was just as valuable to the artist. The aged, time-honored wrestler, under his shrunken skin showed with all the clearness and with nearly the detail of a dissected subject, the development of every joint, the origin and insertion of every muscle and cord and tendon. Thus it was that the anatomy of the antique statuary was living, not dead. As the artist was studying his art, never for a moment was the knowledge of motion and use separate from his subject. For all the purposes of anatomy, as the Greeks studied it, the academy model is but so much lifeless clay. Our civilization is one of apparel. Our activities and pursuits and even our emotions are typified in our garments. Sir Charles Bell used to introduce a naked athlete to his class, and say to them: "In the exercise of your profession you have to judge of the development of the limbs, and the joints, disfigured by dislocation, fractures, or tumors; but not one of you, perhaps, has ever looked on the natural body itself." I have no

doubt that many an artist has plied his brush or wrought with his chisel, and not without credit and fortune, who has never looked upon the perfect, nude, living figure. I remember seeing a portrait by a distinguished artist, in which the wrist was so out of drawing that it resembled that of a person suffering from fracture of the wrist.

Now anatomy, as we study it, even as it is demanded by modern art of this period cannot be reduced to exact standards as it was in the famous figure by Polycleitus called the Doryphoros, or Spear-bearer, and to which the name of the Canon was given. None but carefully and patiently-collected anatomical measurements would warrant such a generalization as a canon in art; or would be tolerated by such a critical people as the Greeks.

One other factor existed in Grecian civilization, which accounts for their wonderfully accurate anatomy, and which contrasts strongly with the existing conditions of modern times. This was the peculiar relations of women to society—the surface society which gave color to their daily life. Then, as now, women wielded an important influence, but the *hetaerae*, not the wives, were those who formed the governing female class. In this relation we must regard Aspasia as an art type. Legislators, moralists, poets and artists, sought and enjoyed the society of these women, free from the suspicion of wrong. They constituted a grade in life consecrated to beauty. As manly perfection and strength were deified, so also was womanly beauty. Phryne reproduced in a statue of gold stood in the temple of Apollo. The flower-girl Glycera inspired her lover in art. Laïs concentrated in herself the love and art inspiration of Apelles. The acute aesthetic ardor which existed raised her to honor and shielded her from public scorn. The woman of virtue might aspire to be the wife, but none other than the beautiful could be raised to the rank of the *hetaerae*. But what a picture is given us of Greek society, when we consider that these women alone formed the cultivated class—when such were their culture and intellectual charms, that the best and wisest men sat at their feet as disciples. Pericles took lessons in government from Aspasia, while Socrates found wisdom in Diotima. Every one of these matchless women sat to some inspired artist as a model. Her unsurpassed proportions, her grace, were translated into enduring lines of beauty, in marble, or upon canvass. These free women of Athens existed as the ideal and the

real in art. While this worship of the beautiful was lifted above grossness by the refinements of intellectual culture, those more subtle harmonies of heart and mind, which, while unseen upon the surface of society, inspired innocence and purity in the art motive, existed with a force which the best era of modern history cannot more than equal. Instances of the purest and noblest conjugal love, of the most heroic devotion to marriage ties, are furnished by the history of this people. This phase of their character inspires one of the most beautiful and eloquent of the passages of Lecky, and as it evidently finds a place in the art of the period, and helps make up the sum of their marvelous idealizations, I shall quote, "The conjugal tenderness of Hector and Andromache, the unwearied fidelity of Penelope, waiting through the long revolving years the return of her storm-tossed husband who looked forward to her as the crown of all his labors; the heroic love of Alcestis, voluntarily dying that her husband might live; the filial piety of Antigone; the majestic death of Polyxena; the more subdued and saintly resignation of Iphigenia, excusing with the last breath the father who had condemned her; the joyous, modest and loving Nansicaa, whose figure shines like a perfect idyl among the tragedies of the *Odyssey*—all these are pictures of the perennial beauty which Rome and Christendom, chivalry and modern civilization, have neither eclipsed nor transcended. Virgin modesty and conjugal fidelity, the graces as well as the virtues of the most perfect womanhood, have never been more exquisitely portrayed."

Let this scanty picture of the social conditions in which the art of this young civilization had its being, serve as the back-ground of the sketch of the anatomical needs of modern art. The contrasts between the two periods are vivid. Yet in some of their aspects they are more apparent than real. The past period represents fully the emotions, faith and needs of the people, and is therefore true art. If the formative arts of these days rouse emotions and aspirations not unmarked in the great heart of the people, spring as it were naturally out of the aesthetic consciousness of the nations, then it is true art, and as such is worthy to be called the art of the period. Under this definition modern art may, or may not be based upon anatomical truths, yet it may be able to express faithfully the conditions from which it springs. These conditions are relative, not absolute. Jap-

anese art represents without doubt the needs and emotional life of that people. Comparing it with art among us, we call it rudimentary; but it would be difficult to say in what sense it is rudimentary. It is simply carrying the ideal school in art to the extreme. The essence of Japanese art is in ideas, and not things. It meets the aesthetic emotions of the people by symbols, not by absolute realism. In this sense it is perfect in its simplicity. This is the genius of the people. Their alphabet represents ideas, and not sounds. Their literature is one of ideas interpreted by symbols. It conforms strictly to the organic law of true art, since its truth is not in the object, but in the ideas which it represents. Their art idea is distinct from the laws of perspective, or the effects of light and shade. All this is consistent with perfection in detail. In fact, what with us finds expression in the laws of perspective and of shade, is with them satisfied by truth of detail. We in our so-called higher art cannot rival them in method, or in the perfection of color or detail. The most perfect realism finds a place in the art of this people. If they paint a flower or a bird, it is with a painstaking fidelity to nature in proportion and color, which the highest art with us cannot more than equal; and yet, this absolute truth is not a characteristic of their art. This reveals to us how different may be the art purpose, yet how true the art.

The relations of anatomy here are but faintly seen; or if anatomy is at all copied, it is without reference to use or fitness. It will not do to say that this is a fault of execution or of method, because in these they equal the best of European modern art. There are other people who fall in line under this definition, and whose characteristic art expressions just as truly and fully represent them. It may be objected that I have fixed upon a low standard for the art idea; but I believe this standard affords a test for its very highest expression. It tests art in its ultimate utility and beauty, in its capacity to educate, and not least, in finding a response in the aggregate consciousness and enjoyment of the people. An artist whose ideal or motive, and whose means or treatment, however perfect in themselves, are not in accord with the age in which he lives; who among the people can find no heart responding in sympathy with his work or is suggestive of nothing high or pleasurable, has lived in vain so far as the higher purposes of art are concerned. He may have worked in advance of his period, or have revived long-passed

motives and methods; in either case it would have become true in the future, or by retrogradation true of the past. An artist has his very existence in the ideas and emotions which define a people. He stands between the idioms of the people, and translates them into the inarticulate and universal language of art for all the world. He is first a good citizen, and then, if he may be, a good artist. In his works are mirrored the manners, the customs, the ideas, the individualities of his race and age. He may be so divine a master that he represents an epoch in the history of his race, yet all these are reflected in his life and work. It is in catching this national individuality in its broad and ineffaceable lines, or in its subtle or transient passages, and fixing it in objects which exist nearest to its kindred emotions, that satisfies alike the aspirations of the artist and the art love of the people. Accepting this as true, we must see at once how limited is the application of human anatomy, as it was once known and followed, to modern art. So utterly changed is society that there is no longer a chance of knowing anatomy as it once was known. But fortunately it is no longer demanded. Criticism rarely turns intelligently upon anatomy, because the subjects seldom allow anatomy a prominent place. This is essentially an age of drapery and accessories. Art has surrendered its freedom to the national modesty, but in doing so it has not lost its power to respond to the underlying art emotion of the people, or of assisting the popular heart to uplift toward the true and beautiful. That most beautiful thing in nature—the perfect human form—has been cast down from its lofty place as the one type in art, and has been merged into a broader ideal. While we have gained in one direction, we have lost in another. Beauty may have found a more copious language in a broader naturalism; but the scope of the human body to express in its development and movement all the aesthetic feeling and veneration of a people has become limited. This limit of the classic period has however touched the consciousness of modern art. Modern sculpture has produced some beautiful examples of the nude or partly nude female form. These works have idealized the purest and most exquisite emotions. In this, modern art has prolonged the dream of the past, and created, as it were, from its memory, a tangible type fully at one with modern emotions. Here the classic limit is reached. Sculpture has no modern examples of the male figure which accord either in substance or idea with the classic

period. The less emotional but more spiritual idea, which found expression in the grandeur and heroism of the Greek type of the male form, has given place to other ideas springing from modern life. May it not also have yielded to modern ignorance of its living prototype? In this age, to fully equal the antique in the anatomy of the nude male figure would be condemned as a gross exaggeration. Such an example would exist as a monstrosity, because no possible modern experience could find its confirmation in nature. Yet so delicately is it made to portray the ideal, so transparent is its atmosphere of truth, that the contemplation of such specimens of past art, even in broken fragments, affords us the keenest delight.

Exhibitions of paintings may safely be regarded as an index of what the present art public appreciate and require. True artists have ever been sensitive to the throbs of public feeling, and responsive to them. While the prevailing aesthetic needs of the people are not the forces which alone define the work of the artist, yet the artist is himself the result of those factors which produce these wants. Now, while public exhibitions show us the specialties of each painter, they also, taken as a whole, reveal the demands of the art lovers.

The subjects we find here are endless. They must be classified in order to be enumerated. Home domestic life and *genre* are powerful art motives, and nearly define a school in modern art. The Anglo-Saxon ear is always open to the word "home." The artist cannot devote himself to any work more elevating or refining, than to place upon canvass the objects which identify themselves with the emotions of home-life; nor can a theme be found which demands a brighter genius, or greater technical perfection in its treatment. The intensely emotional activities of modern life afford another large class of subjects, and one that awakens a sympathetic response from the popular heart. The labors, the loves, the hates, the ambitions, the rivalries, joy, sorrow, success and failure, all exist powerfully as art impulses. The classical subject and the historic piece of heroic size have yielded the place they have so long retained in high art, to these modern character-pieces warm with the life around them, and colored by the hues and light and shadows of living emotions. The historical theme seems also to have borrowed much from the realities of modern life. It depends less upon imposing efforts and accessories, and endeavors to realize the moral atmosphere of which the event forms the historical center, and demands imagination, culture

and thought from the spectator. It differs as widely from its more ancient prototype as modern historical writing does from the chronicle or state paper. Art in literature obeys the same laws which govern her sister art in painting. One will illustrate the other. The modern novel, when it ceases to be gross and material and becomes simply realistic, expresses true art. The machinery of plot and mystery and the unreal, has given place to a painstaking fidelity to life, as we have experienced it, for the purpose of reaching an ideal end. This end is to depict the inner and higher life of men and women. It now aims to so group action and event as to define a type of character; not minutely drawn descriptive passages which cheat the imagination, but gradually to unfold, in the action and in dialogue, a type of human motive and character, and to suggest to the imagination the psychic ideal of the artist. It is in this way that in "Fated to be Free" by Jean Ingelow, we gain an ideal of a delicious childhood. Throughout the book there are no simply descriptive words of children or their ways. That would have destroyed the picture. The coloring, the light and shade of the childhood so artistically painted are suggested, not described, by action and the childish prattle of the little actors. What is this but perfect realism, both in matter and spirit? It is character study as we find it in daily life. We find no elaborate descriptions of character of those we meet, ready for our perusal; but imagination and inquiry are urged on by word and action, and by the absolute realities around us.

These are the agents by which modern art is working its way to a high place, and not with many erring steps; this is modern Pre-Raphaelitism, not wholly recognized, but slowly working its way to the surface in literature as well as in art. Profound ideas which exist below the surface of realities, light fancies and tender emotions, must find recognition and expression by artistic incarnation. Like the old Greek art, finding the divine in the material, yet employing it as a symbol of the super-sensualism which pervades our modern art impulse; holding fast in loyal allegiance to the beautiful, yet with a broad catholicism believing in more than one type of its material form. I am speaking of what modern art seems to be striving for, rather than what, as a whole, it represents. But this is the direction of its drift. It seems with a clairvoyant sense to look beyond the surface of a beautiful object, and sees there the highest form of emotional life; seeking so to copy nature, that what appears to the senses

may be construed into art language which inspires the soul ; seeking also to paint ideas as well as forms—draping the object with a tender atmosphere of emotions and spirituality.

The human figure is the point around which this emotional life revolves ; but the era in art in which it existed as the nucleus with an atmosphere of superstition has passed, never to be revived in true art, unless our civilization were to give way to other forms more in harmony with the past. Anatomy has existed simply as an interpreter of beauty, yet with so potent an influence that the ideal struggled in vain for expression if linked with faulty anatomy. Such a work of art as the statue of Lysippus, or the Athlete of the Vatican, the action of which consists in wiping the sweat from the arm, is impossible with us. Such, however, is the perfection of its anatomy, the truth of its attitude and expression, that it is replete with the art inspirations of its age. The force which produced it, aside from its motive and action, exists for us, yet associated with its idea, faintly like a reverberation through the misty centuries.

The question, Does modern art depend less upon anatomy as a vehicle for truth and idealism, than its ancient archetype ? must I think be answered in the negative. Anatomy in modern art demonstrates its truth less to the eye and more to the imagination. Truth exists as purely and as potentially in spirit as in substance. What then is the relation of anatomy to our latter-day art ? This relationship exists in action. Not the action of the athlete, or of beauty simply, but rather that which conveys the idea of life and emotion as we know it to exist among us. Emotion finds its reflex existence in action, and is caught and incarcerated and translated from its intangible being into the language of form and motion. Art is to-day based as solidly as ever upon anatomy, but with a broader ideal, and with motives greatly multiplied and brought nearer the modern daily life of the people. Its relations are more complex. I do not think it going too far to say that art requires a more technical knowledge of anatomy than ever before. It demands such a practical familiarity with it that the artist is able to render correctly its function, which is motion. Attitude, gesture and expression cannot be studied, much less applied to the purposes of art, without going beneath the surface and learning its mechanism. As the themes of modern art are taken from life, so also must artistic anatomy be studied. The academy figure and the antique give but an idea of surface anatomy. It

gives an idea of results, but without means, and even the first imperfectly. The photograph bears the same relation to anatomy, and it would be just as reasonable to require the student to study anatomy from it as from the antique or model. The photograph expresses absolute truth; but it is a result, without giving any knowledge of the agents by which it is attained. The scalpel must be the companion of the pencil. I do not wish to supersede these time-honored means of instruction, but they are rather to be used to refresh the memory than as a sole source of information. As we cannot, as a daily occurrence, see perfect nude specimens of the human form in motion, or study the origin and insertion of muscles and the details of joints in the decrepit old athlete, we must be satisfied to do what our art requires of us—we must gain such knowledge of structure and function that they may become the alphabet, as it were, of the artist's inspiring idea. Modern art requires that this knowledge be ever ready at the artist's command, so that he may work confidently at his ideal, unhampered by doubts of the means by which he is to give it form.

It is easier to give perfect anatomy in the nude or partly nude figure, than it is to convey the idea of perfection in anatomical details in a figure draped in modern costume or in the hybrid drapery made up of modern dress and the ample folds of the Roman *toga* which is so often seen in modern portrait statues. In the nude figure one sees not only the result; but the means by which that result is attained; while in the other one can see but the result arrived at by means unseen, and if no error exists, must believe in as existing. The modern sculptor and painter must interpret anatomy by its function, that of motion. He must convey to the beholder an idea of truth, not by a muscle in a state of contraction, but the motion that results from the contraction. For this he has no guide but a perfect knowledge of anatomy and its function. The artist in the modeling of an undraped limb, has a guide constantly before him in the very muscle to which he is giving expression, while if he were working upon a limb concealed by drapery he would have no guide other than his more or less accurate knowledge of muscular function.

Art abates none of its demands for truth in anatomy since modern art themes conceal it under the accessories of drapery. It may be more difficult to reach technical perfection, but it is rigidly exacted.

This accuracy must be expressed by truth in function, unaided by anatomical details self-evident to the eye. Perfect faith, the result of perfect knowledge in things unseen, must be the medium by which harmony of subject and anatomy may be made to blend in this latter-day art. In order to reach this faith in the material realities, anatomy must be studied from life. It must be studied as the Greek studied it, in the field of human activity, not for the purpose of crystallizing every detail of form as one of the crowning glories of the pencil, but that these details may be concealed by the necessities of the themes which lie so near and warm to the popular heart. The art student or the artist, therefore, cannot be satisfied by a study of the academy model. Pose it as you may, you can learn from it form only, not motion or life. The scalpel may go deeper, but only for the purpose of revealing form in its details unimbued by its ultimate aims—life and motion. These are necessary; they are, as it were, the alphabet to the glowing vital activities of the perfect art language. Among the people only, from whom are drawn the impulses of modern art, can such anatomy as the modern artist needs be studied—the anatomy of function, not of form and detail only. Error can find here no place. Form and detail must be perfect that are capable of giving to the beholder a vivid faith in the truthfulness of life and motion.

ELY VAN DE WARKER.

SOCIABILITY AS PROMOTED BY THE ACQUIREMENT OF FOREIGN LANGUAGES.¹

GENTLEMEN: I propose to speak of the sociability of man; that is, of that internal power which continually urges him to seek those of his kind, and to live with them in a state of society, so as to profit by their labors, and render them in turn the benefit of his own.

I am going to treat of this sociability under one head in particular, which I hope may not seem to you unworthy of your attention.

¹An address delivered at the opening of the course of lectures on Political Economy in the College of France, December 7, 1875.

The powers of man brought into action in the accumulation of wealth, as well as those employed in other pursuits, are of great number and variety. Some belong to the physical order; these reside in the material organs. They were the first that the primitive man made use of; and so long as they were his only or at least his principal resource, the progress of civilization was slow and uncertain; liable, indeed, at any moment to suffer a complete defeat.

Our faculties of the intellectual and moral order compose another category of human powers. They are the essential springs of all our actions. Of these the two most important, upon which all the others depend, are reason and sociability. Aristotle, one of the greatest geniuses that ever lived, and one of the most brilliant lights of civilization, was the first to define man by applying to him these two attributes. "Man," said he, "is a being reasonable and sociable."

Now reason displays itself in many ways, but principally through the intelligence, individuality and liberty. These three are the three faces of the indivisible diamond, human reason.

Man is, of all animals, the most personal (so to speak), the most jealous of his liberty, the most intelligent, and withal the most sociable. His intelligence is capable of continual development; his desire for liberty is unbounded, but legitimate only to the extent of his self-control; and his individuality is constantly making itself more known and felt. In like manner his sociability can acquire the grandest development, can reveal itself under various aspects, and dispense innumerable blessings.

As regards the faculty of reason, I have had occasion several times before to call your attention to it, and to impress upon your minds its importance as *the* great attribute of our species, under whatever of its three heads, liberty, individuality and intelligence, it may be viewed. Its power thus understood is capable of great results when constituting the source of those actions, be they individual or collective, which have reference to the science of political economy. Liberty, especially, is regarded by the political economist in the light of a tutelary divinity. In it he perceives an indispensable condition to a healthful activity among men. Freedom of labor, consisting as it does in the free exercise of the divers industries and professions, is recognized by him as among the chief requisites to advancement in civilization. When this liberty is infringed upon,

it is as though a breach were made in the natural rights of the people. However insinuating the language that colors it, however artful the metaphors and sophisms that tend to conceal its true import, the act that trammels in any way the freedom of labor of a people is of a nature retrograde as far as regards its influence upon civilization.

Sociability is a faculty of an equal and parallel nature with this intelligence, individuality and liberty. It is in no way antagonistic to these qualities. Like them, it accomplishes a great deal of good, and displays itself under a great variety of aspects. In fact, one of the distinctive characteristics of an advanced state of civilization is that the laws and customs of which it boasts are favorable to the different phases of human sociability.

Without the social state, man is no longer himself; he is nothing but an animal, coarse, awkward, and filthy beyond measure. The man who leads a solitary life, absolutely separated from those of his kind, is unable even to supply his own wants, and in his distress he falls to the lowest state of abasement. Reason deserts him; he is despoiled of his individuality; he loses every sentiment of liberty; he scarcely differs from the brute creation.

It has been said, however, in answer to this, that Robinson Crusoe was comparatively well off, though absolutely alone on his desert island. But, first of all, Robinson Crusoe never in reality existed. He was only an imaginary being, the creation of the ingenious mind of a clever romancer. And, again, even supposing him to have existed, Robinson Crusoe in his solitude was not entirely devoid of society. He was not cast naked and empty-handed upon a desert shore. The influence of society followed him under many different forms. It was first exerted by the wrecked and stranded ship which served as a storehouse, whence he had time to provide himself with various articles of use and comfort. From the very beginning, we read, he displayed great activity in rescuing from the ship such things as he needed, during a series of visits which were attended with great risk, and which he continued until a tempest destroyed the wreck entirely. There he found food and raiment, a chest of carpenter's utensils—the latter infinitely more valuable to him than a chest of the most precious metal—wood, canvas, and nails, precious articles indeed for him in his situation. In addition to this there were needles and thread, and firearms, with powder and ball sufficient to enable him to live upon the game which the island afforded in abundance, and after-

wards to defend himself against the cannibals on their arrival. The wrecked vessel, which was truly a Noah's ark to him, also furnished him with corn and rice, which he sowed, and which soon furnished him with an abundant harvest.

True, Robinson Crusoe was very much to be pitied in not being within reach of a town, a village, or even a single human being; but it was none the less a favor of Providence that he was able to provide himself not only, as we have seen, with articles of food and clothing, but even with instruments of labor, by means of which he could explore the island, build himself a dwelling, raise his crops and enjoy the harvests. The society from which he was separated by the wide expanse of ocean furnished him even with resources of the intellectual and moral order. Such were the instruction and education he had received at home, and the impress of which could never be effaced from his memory: instance the domestic arts, such as that of making bread, of manufacturing candles from the fat of mutton, and of baking thick earthenware pots. There, too, was the keen sense of observation by aid of which he soon perceived what was most to his own benefit amid the natural wealth of the island. There, again, was the force of character which he had acquired in his native country by his daily contact with bright, energetic and persevering men; and there, finally, was the small number of books which he had saved from the wreck—and, in particular, a Bible, the perusal of which cheered his soul when saddened and oppressed by the awful solitude which surrounded him.

Bastiat, then, is perfectly right when he says that Robinson Crusoe affords no example of a man completely isolated from society, since in his solitude he was continually deriving benefit from it.

Nor, indeed, were those recluses in a complete state of isolation who lived in the desert of Thebes, though they voluntarily deprived themselves of all the delicacies of life, and even of many things generally considered of primary importance to man. They often had recourse to each other for the performance of their religious duties, as well as for the purpose of strengthening each other in their faith. True, they passed their lives for the most part in silent meditation and in the performance of the most rigorous and austere practices that religion could suggest; but however anxious they might have been in regard to the safety of their souls, nature compelled them to remember that they still had a body, and this body

laid claim to their attention through the imperious voice of its wants and sufferings. Whatever feelings of aversion they entertained for the indolent and pleasure-loving Sybarites, however much the greedy voluptuousness of a Lucullus, an Aspicus or a Vetellius excited them to scorn, they yet found it necessary to eat and to drink, they yet must needs furnish themselves with clothing. To this end they sought the assistance of society. Even their religion, which to a certain degree was everything to them, was not the fruit of their imaginations while in retirement. It did not come to them by any direct revelation, but solely through the medium of society.

In fact it would be impossible to find an absolute stranger to the social influence, even among the savage tribes that inhabit islands wholly out of the pale of civilization, or those that people the deserts of America and Australia. These tribes possess the rudiments, at least, of society. With them the family ties are more or less respected, being regarded as indispensable even to the maintenance of the individual's existence. Among them all a hierarchy is observed, unity exists to a certain extent, and association unites their individualities. Among them all, too, we meet with germs of the useful arts, which they transmit from one generation to another, or receive from neighboring nations.

For examples of men truly isolated from society, and deprived of all the benefits accruing from it, we can only turn to those unfortunate beings who are found at times in the midst of the forest—naked, and living on roots and wild berries. These miserable beings have lost the very remembrance of a happier mode of existence, if indeed such had ever fallen to their lot; yea, have lost even the faculty of speech. Received again within the pale of society by the public commiseration whenever chance has placed them in the way of civilized man, they always excite curiosity, and become objects of great interest to the learned. We find in them a degree of abasement well calculated, indeed, to dispel those vain delusions regarding our native superiority which our vanity suggests. Buffon recites examples which in his time had been noticed and studied with superstitious curiosity. In the beginning of our century there was a being of this kind usually known under the name of the *Savage of Aveyron*, upon whose appearance it was generally believed that a specimen of the primitive man had been found. The so-called philosophers of the day were deluded into the belief that he was to

bring to light some of the precious truths which had been hidden from the view of the civilized world by some corrupt influence; and one school in particular even declared that this influence had been civilization itself. The poor creature was consequently overwhelmed with attention. Physiologists examined him, philosophers assailed him with questions upon questions. They were continually expecting revelations from his lips, yet nothing could be drawn from him except senseless, inarticulate sounds, and imbecile gestures. He was, in fact, neither more or less than a brute, inferior to the orang-outang in agility, and far beneath the dog in acuteness and intelligence.

All these so-called savage men must have been as children at a very tender age lost in the forest, whither they had very probably been led by unnatural parents, who were desirous of being rid of them. They sustained life by feeding upon berries and other wild fruits, as also whatever roots or herbs suited their fancy. A hollow in the trees or a cavity among the rocks served them as shelter from the weather. Having no occasion to practice their native tongue, they forgot by degrees the meaning and even the sound of words. Forced as they were to concentrate all their faculties upon the one object—the search for food—and always suffering more or less from hunger, their minds became blunted to such a degree as to resemble after a while the instinct of the animal. Weighed down, as it were, by the burden of their own destiny, they fell to the level of the beasts in every particular, even to that of walking like them on all fours.

Here, then, is the true example of the isolated man—the individual wholly left to himself—and we must admit that it is but the type of impotence and degradation.

From the fact that the faculties of man, his tastes and sympathies, attract him more than all other earthly beings towards the social state, it follows, in virtue of the law of harmony which pervades all nature, that society is all the more indispensable to him. Buffon tells us that society is “after God” the origin of “all power” in man. This great observer makes a very conclusive remark upon this head. He says that on account of the length of the suckling period in man, and the extraordinary slowness of his development, or, in other words, his feeble state of mind and body for a very long time, he absolutely needs during that time the incessant care and attention of his parents; whereas other animals are not by any

means so constituted. To deprive man of this care and solicitude would be his certain death. Now the amount of attention which the lower animals require before they learn to provide for themselves is only a matter of a few months, at most; in some cases a few weeks are sufficient. Man requires years; and this, too, for his physical development alone. If, besides, we keep count of the time needed by his intellectual and moral faculties in order to attain even a very incomplete stage of maturity, we shall be obliged to add very considerably to the apprenticeship of life.

Hence it is that for the individual to mature sufficiently to enable him to start forth in life upon his own responsibility, the permanency of the family is absolutely necessary. It is required as well by the physical conditions of our species, as by the law which prevails at the dawning of our intellect, and during the whole course of the development of our sensitive faculties.

We may then lay it down as a rule, that man can never develop physically, much less become a worthy member of civilized society, without the existence of the family—a family, too, so solidly and fixedly constituted as to be able to watch over him with the constant care of a vigilant instructress, and the kindly solicitude of an ever-watchful Providence.

The family ties, strengthened by time, acquire such a degree of consistency as to last as long as life itself. The interest to which the inheritance of property gives rise, united with the reciprocal affection which already exists between the different members, tends also to strengthen these ties, and render them always binding; excepting, of course, when certain grave circumstances, such a great crimes, suddenly rend them asunder. With the beast, on the other hand, the family is only a transient assemblage, which, after a short time, disperses so completely that the very remembrance of it is totally effaced. Often, among them, the family does not exist at all for the male. He has no idea of it, or, if he has, it is very ephemeral. The feeling with the female is passionate, but of short duration. She would kill herself for her young, so long as they need her aid in procuring food; but as soon as they have passed the age of helplessness, she knows them no longer.

With man, the family is a primary indestructible society, which serves in turn as an essential element of a larger one; this latter being either the tribe, the colony, or the nation, according to its

stage of advancement in civilization. Where these several societies have attained considerable magnitude, they constitute the great States. Enlarging more and more, as time goes on, these in turn combine to form on the one hand powerful confederations, occupying a vast portion of space, of which the United States presents the most perfect model; or, on the other, a single uniform organism extending throughout almost unlimited regions, with immense populations ever on the increase:—the Empire of Russia is a type, and almost an ideal, of this other form of the larger society.

But, however colossal the edifice may be, its foundation is always the primary group—the family.

In the domain of political economy, exchange is considered as the strongest evidence of sociability. The importance of this exchange should never be overlooked, especially by those who are called upon to govern the people. It should ever be impressed upon the public mind by all those who advocate the cause of political economy, and desire that the beneficent influence of its doctrines may be more and more felt as nations advance.

However, taking a more general view of the subject, there is a still more apparent and more frequent evidence of the sociability of man, and of his aptitude to social existence, than exchange; and this is language. Speech is one of the great privileges peculiar to the human species, and is, it must be confessed, a most admirable instrument for the communication and exchange of sentiments, opinions and desires of every kind—those that regard the accumulation of wealth as well as those relating to other pursuits. The rest of created beings on earth possess only a very imperfect and incomplete imitation of this faculty.

The companion of the art of speech is that of writing, which is directly incident to it. This latter art was at first figurative in its nature, but became afterwards phonetic; that is to say, the signs represent the sounds. The phonetic writing, it may not be out of place to say, was only acquired by dint of much labor; and until its invention the link between succeeding generations was feeble, and left much to be desired. But once this mode of writing was invented, adopted by the lower classes and of general use, the transmission of ideas was effected in the most exact way, not only between persons in each other's immediate presence, but between those as well who were separated by great distances both of time and space. By

means of phonetic writing, any member of the human family can enter into immediate relation with the inhabitant of any spot on the face of the globe, can have in his possession accounts and recitals regarding the generations that have preceded him, as well as being himself able to provide posterity with accounts of himself and of his own times. In our day, by means of the electric telegraph, communication, by writing, with the different people of the earth, has been wonderfully facilitated. Events become known just as if all men were united in the same public place.

But a great obstacle to this communication both in writing and in speech arises from the difference of language among men. A Frenchman and an Englishman, for instance, in each other's presence, if only conversant with their native tongues, are as much at a loss as though they were deprived entirely of the faculty of speech. Thus the fact of a man's only knowing one language, and of the great majority of people in a nation being confined to a scarcity of means of expression, is degrading to the individual and actually harmful to the nation; for it isolates them to a certain degree, and consequently deprives them of much benefit that would otherwise accrue to them. It is impossible that their political status and their economical interests should not suffer from it, seeing that they are so seriously affected by it in other ways.

We all recollect the history of the Tower of Babel. The people, all united again in a single family on the plains of Babylon, were affected with such pride at their supposed power that they resolved to erect a tower which should reach heaven itself, and proceeded at once to the execution of this foolish project. As long as they spoke the same language, the work progressed rapidly, and the tower rose to a great height. A moment however came when God, displeased with their foolish undertaking, by an act of His will threw them into confusion by creating a diversity of tongues among them; and from that time, understanding each other no longer, their efforts were no more in unison, and the work had to be abandoned.

On the other hand, we read in the Evangelist that when Christ ascended into heaven, His disciples, left to themselves, and having to fulfil the mission of Apostles in preaching Christianity to the nations of the earth, found themselves in the very beginning face to face with the great difficulty of making themselves understood by

those of different tongues from their own. In order, therefore, to give greater efficacy to their labors, God performed a miracle, the converse of that of the Tower of Babel. On a sudden they received the gift of languages. Each one of those humble fishermen, who before had known only the vulgar tongue of Judea, acquired on the day of Pentecost the facility of speaking at will all the languages of the earth, and from that time they were most wonderfully assisted in the accomplishment of their task.

It would be well, I think, if those whose duty it is to direct the public instruction with reference to the greater good of the state would remember these two events recorded in the holy books, and draw from them the lesson they tend to inculcate.

In the first instance God, resolving to reduce men to utter helplessness, confines Himself simply to making them all speak different languages; while, in the second, wishing, on the contrary, to attach the greatest weight to their efforts, He places them suddenly in possession of the language of each and every one of their hearers. There seems to be an irresistible conclusion to be drawn from this in favor of the acquirement of foreign languages.

In every epoch wherever it has been wished to exert an influence of some sort upon men of different nationalities in order to unite them in a common opinion, and direct them towards a common end, it has been found necessary to establish among them a common language. In this respect the Middle Ages afford a very fine illustration.

At the fall of the Roman Empire, Europe was divided among the conquering barbarians; and all the new kingdoms so formed, after having acquired a certain consistency and fixity, established by degrees their own peculiar languages, by a rough combination of the dialects which they had before made use of, either in the forests of Germany or on the plains of Asia, with the old Latin tongue. The Roman pontiffs, supreme heads of religion, wishing to use the immense and uncontested authority they held over the barbarians in guiding them in the path of morality, considered it indispensable to have in their hands some means whereby they could remind their followers unceasingly of their duties as men and Christians, and establish and maintain discipline among them, so as to curb their passions, restrain their wayward humors, and subject their brutal appetites. To this end, they had the wisdom steadily to retain by

the side of all those languages in the process of formation and continual changes, a uniform tongue, which was everywhere consecrated to prayers and religious practices, and which was in constant use among the clergy from one extremity of Europe to the other. By means of this language, thus honored with a special prerogative, the Court of Rome could be, and was, in constant communication with all the bishops and priests who acted under its orders; and through their instrumentality could deliver its commands to all the faithful, not excepting emperors, kings, and temporal rulers of every character and description.

The language which acquired this prerogative was the Latin; and very naturally, too, since it had been the court language of the Roman Empire, at least in all the western provinces. It was in this language, too, that were written, not only those numerous masterpieces of literature which are admired to this day, but also those beautiful laws which the whole civilized world was wont to obey. By means of this noble tongue, the sole survivor among so many ruins, a continual communication was maintained between the sovereign pontiff and the most distant branches of the church. By its means there was uniformity of worship both in doctrine and practice, and an order and discipline which ever held out against the storms stirred up by the tumultuous passions of kings and great men, and so successfully, too, that after having revolted against the church which possessed it, they were forced to curb their ferocity and submit to her direction once more.

It may, perhaps, be well to remark here, if for the sole purpose of confirming the veracity of history, that an analogous event to that which transpired in the western provinces of the Roman Empire, took place in the eastern portion. It was only in the west that the Latin tongue held such a sway. In the east it would have been impossible for it to have acquired the same pre-eminence. The language of literature and of learning, the language made use of by the cultivated classes of the east, was for ages that of Homer, of Demosthenes, Aristotle and Plato—that tongue so rich and sonorous, renowned alike for its grand monuments of poetry, science and philosophy. But this eastern half of the civilized and Christian world, soon separated from the west by the division of the Roman Empire, was not reserved for as grand a destiny as the other. A new and distinct religion was there adopted upon the great schism of Photius,

wherein the Greek language held the place occupied by the Latin in the west. Years after, the apparent symmetry and similarity between the two was destroyed by the sword of Mahomet and his successors, who, by degrees, overran entirely the empire of the east. Since then civilization has been fast losing ground in the east; whereas in the west it has taken a magnificent flight and attained great eminence.

With this short mention, then, of the Greek language, the Eastern Church and Empire, which I considered due to them on account of their former importance, we will drop the subject and devote our attention solely to the western portion of the Roman Empire, and the Latin tongue.

The general use of the sacred language (as it may be termed) throughout the West, contributed much to strengthen the power of the Church on the one hand, and on the other to preserve and propagate those seeds of civilization which had survived the invasion of the barbarians. If this solid bond of union had not existed between all the different grades of the religious hierarchy; if in those times of ignorance and barbarism the clergy had not possessed everywhere another language than that of the local population; very probably the Church would have fallen to pieces in the same manner as the people assembled on the plains of Babylon were dispersed by the confusion of tongues.

In the Middle Ages the clergy were the only class who guarded the store of human knowledge. They were, as a consequence, the only instructors of the people. In fact, the very name of clergyman signifies a man instructed. Now, from the privilege conferred upon the Latin tongue, it follows that there was but one language in Europe consecrated to science, but one for educational purposes, but one studied in the universities; and this was the same that was made use of in all the practices of religion. Such being the case, this language could not but have been of great service in the reconstruction of that learning which had almost disappeared amid the general ruin that attended the advance of the barbarians. Through its means the men of science in every country came to know each other personally—a most remarkable fact, by the way, which is not by any means the case nowadays—and in this way they could impart their learning to each other, and thus derive mutual benefit.

The establishment of the Latin, then, as a language superior to all

others and as a tongue fitted for the most exalted usages, has most powerfully aided the organization of modern society. Its exclusive adoption to all these purposes has imparted to it a sort of religious and political, as well as literary and scientific character, and given it an influence by no means inconsiderable. Without it Christianity, that great organization which, in spite of its frequent intestinal divisions, has been a magnificent creation, presenting a spectacle of the most exalted civilization ever known as its effect, scarcely indeed, could have maintained its existence, much less have prospered as it has done.

At the beginning of the sixteenth century the power of the Christian and Latin Church was broken. The great Reformation took place; many people separated from Rome, and one of the innovations which followed was the substitution of the vulgar tongue for the Latin in the prayers, exercises and ceremonies of the new worship. The Latin was not, however, entirely despoiled of its prestige, even among those who had left the Church. For many years it held sway in the domain of learning. The literary productions which claimed the most consideration were for a long time always composed in Latin. The works of the celebrated English Chancellor, Bacon, for instance (the *Novum Organum* among others), were written in that tongue. The same was it with regard to the works of Grotius. Both of these great men belonged to the seventeenth century. The *Novum Organum* was published in 1620; the work of Grotius entitled *De Jure Belli et Pacis*, in 1624. Many other important productions in Latin appeared during the course of the seventeenth century, and some noted ones appeared even in the eighteenth century. The *Praedium rusticum* of P. Vanière, which enjoyed great celebrity, was first published in 1710, and afterwards, in 1730, a better and more complete edition appeared.

But already in the 17th century the languages of most of the nations of Europe had attained a high degree of perfection. Others made great progress during the 18th century. Literature, which commenced then to make use of these languages more generally, shone forth so brilliantly that writers began to rally around it. These writers were mostly composed of the laity, for the clergy had ceased to be the only class who received instruction. Now the laity were much less disposed to allow the Latin its former preëminence than

were the clergy. The reason was because the natural and mathematical sciences, the importance of which was greatly on the increase, were cultivated by the laity with much more success, and the Latin was scarcely adapted to their exposition and explanation. The most important documents, such as international treaties, ceased then to be written in Latin.

It is worthy of remark that even the celebrated Bacon, towards the end of his career, employed both the English and Latin tongue. Many of his productions appeared first in English, and were afterwards translated by him into Latin.

In virtue of an ardent fidelity to a traditional custom which, it cannot be denied, had been in the past productive of much good, the Latin language still continued in those days to form the basis of the education afforded by colleges of all kinds, as well in Protestant as in Catholic countries. In the latter it was of course the clergy that taught it. In this way it retained everywhere a great prestige. Thus, for example, the members of the French parliaments were quite proficient in it. They knew Cicero, Tacitus, Virgil and Horace by heart.

During this epoch—that is, towards the end of the 18th century—none of the living languages were held in very high esteem outside the nation to which they belonged. They were, in fact, very much neglected by the greater number of well-educated people. There was, however, one exception to this rule in favor of the French language, which had been endowed with extraordinary pre-eminence by the works of the great authors during the time of Louis XIV. This language was greatly in vogue among the elite of society, and was in fact the Court language of Europe. But, unhappily, this very circumstance was productive of evil; for the French people soon became imbued with the foolish idea that because their own tongue was so popular, they could dispense with learning the languages of their neighbors; and they have, for the most part, persisted in this opinion even unto the present time.

In our day the current is changing throughout the entire extent of civilization. True, the Latin tongue will ever be held in very high esteem; but its pre-eminence over all the others is at an end. The University rules, with regard to its study, will perhaps become more numerous and more rigid; unhappy students will, no doubt, be regularly required to construct verses in Latin, be they endowed

with the poetic vein or not; but these same students will never be endowed with a true and ardent devotion to the Latin Tongue.²

A similar attempt with regard to the Greek is always attended with even less success. Indeed, a sort of passive resistance arises from the student himself, which is not easily overcome. Without being profound observers, children between the ages of twelve and fifteen years note with a tolerable degree of accuracy whatever occurs around them, and among other things they perceive that the knowledge of the ancient languages is never going to be of very great importance to them. Hence they conclude—and very logically, we must admit—that it is not worth their while to worry their minds about them. A century ago, among the educated classes, a young man would see upon his father's table the works of Cicero and of Virgil, the *Ars Poetica*, the odes of Horace, and other great classic authors. The father was wont at odd times to open one of these noble works and read selections from it, for his own recreation and amusement. In his father's conversation with friends, the young man would often hear citations from these great authors. The Greek also was not wanting; and we read that Chrysale, in the *Femmes Savantes* of Moliere, possessed a large Plutarch; though, indeed, he only seems to have used it as a toilet table.

To-day, all is changed. With us, the cultivation of Latin literature is not in vogue, as a general thing; and the Greek is even less thought of. Nineteen out of twenty who have learned Latin, and even taken a college degree, have completely forgotten that tongue a few years after having quit the study of it. Very few, indeed, at

²The ardent upholders of the study of the classics, who have determined to keep alive the tyranny of compelling the students to write Latin verses, and who thus allow the precious time of youth at college to be wasted away, undoubtedly misunderstand the recommendation which *the* classic author, par excellence (Boileau), has placed at the head of his beautiful work—*L'Art Poétique*.

C'est en vain qu'au Parnasse un téméraire auteur
Pense de l'art des vers atteindre la hauteur;
S'il ne sent point du ciel l'influence secrète,
Si son astre, en naissant, ne l'a créé poète, etc.

Why then be so obstinate as to hope that Latin poetry may be a universal talent? Every trial of the student only begets the same result, so that on leaving college, he can apply to himself the following verse of the same author.

Je fis de méchants vers douze fois, douze fois douze cents.

the age of thirty, recollect it sufficiently to be able to converse in it. I entertain a great respect for our public officers, and believe we have in our courts men as learned in their profession as their predecessors in parliaments of old ever were thought to be; and yet I scarcely think that if the little incident related by Cardinal de Retz of himself were to happen again—if in a formal session of one of our courts, a speaker was so bold as to fabricate a phrase, and give it as a quotation from Cicero—there would be one among the learned audience present who could say to himself, as many did then, “the phrase is so well turned that it is truly Ciceronian, yet I have never seen it in Cicero.”

And what must we conclude from this? That the youth of our day only learn Latin by absolute constraint; that they bring nothing but lukewarmness and even indifference to the study of it, and entering into manhood, lose without regret an acquisition which cost them seven or eight years of labor to attain. And this, in itself, plainly demonstrates that those years could have been better employed.

The Latin language can very reasonably expect to live forever in the usage of professional men; and even to persons possessed of a very thorough education, it will always be a great source of pleasure. For the Catholic clergy the knowledge of it is, and ever will be, a positive obligation; and it will consequently be always taught by them in their seminaries and institutions of learning. But for the great majority of the laity, wealthy as well as poor; for those who direct the activity of society in the paths of the different industries, whether in the domain of agriculture, commerce, manufacture, or science; and even for those who fill positions of public trust, the days of Latin have passed away. It will never more be what it has been—the universal language, the common means of communication between the different nations. Already in common conversation we call it a *dead* language, a term which by no means indicates its future popularity. If such is the case, then, with the Latin, it is far less probable that the Greek will ever rise again.

But here arises a question of importance. The western nations, of which those of Europe are the most important, cannot be without a common means of communication among themselves, both in speech and in writing. The social nature of man demands this. If, then, the Latin can no longer fill that position, how can it be

replaced? Manifestly, by means of the *living* languages alone. But none of the languages now spoken can aspire singly to this pre-eminence. Surely the English alone could not be designed for such an ambitious scheme, nor could the German or French; and if these three principal languages of Europe could not, we would not expect it from those of lesser importance. From such a difficulty, then, the only escape possible would be for the people of each nation to learn at least two of the principal foreign languages; and on this head it may be noticed that the old classical education required also the acquisition of two languages, the Latin and the Greek, so that we are asking no more than what has formerly been done. To this end the education afforded by public institutions, such as lyceums, colleges, and primary schools, could be materially assisted by the so-called home training, which begins even at the cradle. Among a few families with us, and a greater number with other nations, it is customary, as soon as the child has left its mother's arms, to teach it another language beside its own—one which, in the opinion of its parents, will be the most useful to it during life. The difficulty of the work in after years is thus greatly diminished.

The man who can boast of a knowledge of the three principal languages of our western civilization—the French, English and German—is provided for any contingency proportionately as he is the more familiar with each one of them. These are the three languages in which he prints all his original publications. The countries wherein they are spoken are the most interesting to know and to visit; for those who devote themselves to the sciences or the useful arts, as well as for public functionaries, members of deliberative assemblies, and even private citizens.

Now, since France touches Italy and Spain on the south, a knowledge of the Italian in her south-eastern, and of Spanish in her south-western provinces, would be very easy of acquisition. It would be sufficient, even if a goodly number of our officials in those quarters would become acquainted with these languages; since, in that event, for the southern portion of our population to learn those tongues, accustomed as they are to their own patois, would be a mere child's play.

To be able, even, to read with fluency the three different languages which I have named as the principal ones of Europe, is in itself a treasure; and this is comparatively an easy task, being much

less difficult, and requiring much less time, than the speaking of them, especially in the case of the English.

But for a Frenchman to be a complete stranger to the other two languages which rank equally with his own, and which we consider positively essential to him, throws him into a deplorable state of inferiority, even though he be in high social standing,—a great agriculturist for instance, or a manufacturer, a man of commerce, a doctor, a lawyer, an engineer, or, most of all, a statesman. In all these different avocations it becomes constantly necessary to consult technical or special authorities, public documents, and books of all kinds. Now, he who by his ignorance of foreign languages, and especially of these I have mentioned, is deprived of their aid, has very few resources to fall back upon. Whatever natural facilities he may possess, he is always behind-hand, always in need of assistance.

Again: one of the most notable characteristics of our modern times, is the attraction which men possess for each other. Their commercial interests cause them to intermingle a great deal, and from so doing they learn to appreciate each other every day more and more. They travel much more than they did a century ago. The railroads, steamboats and electric telegraph most wonderfully facilitate the transmission of news. The tour of the world, as the bills of the theatre tell us, is an affair of only 80 days duration. And yet this great current of progress which has been thus set in motion, and which could not be too much encouraged, meets with one serious check in its advance; and this is the fact that so many of the educated classes only speak their own tongue, which fact can only be productive of estrangement between them. This, then, is a barrier which must be removed; and of all the great nations France, it must be confessed, has most to do in this respect, for the reason that so far she has done the least. The almost universal ignorance which we Frenchmen display with regard to foreign languages is most prejudicial to our interests, both political and commercial. We travel less than other nations because we are easily disconcerted upon meeting strangers, seeing that we cannot understand them nor make ourselves understood. We take less interest than they do in the movement of emigration, whereby intelligent and enterprising men could go forth and make their fortunes, pave their way to a position superior

to what they held in their own country, and in this way propagate far and wide the French influence.

As in all things human, it is necessary to advance by degrees; and as one of the dangers incident to an innovation of any kind is an eagerness which would hurry us into an opposite extreme to what we wish to change, I think it well to add that in order to prosper in the undertaking of introducing foreign languages among our people, it will be quite enough, at first, to direct our efforts towards the acquisition of a single tongue. Not that we should study it exclusively, but that we should establish it as the rule; subject, of course, to exceptions in the provinces. The language, then, which deserves the preference with us is the English. It is that which is spoken most generally, and in all those countries wherein civilization has made the most rapid strides. It is that to which the greater number of people in the two hemispheres lay claim as their native tongue; and, on account of the vast possessions of the kingdom of Great Britain in all parts of the globe, it is a language which cannot fail to increase its domain.

Upon this point I can refer to a most gratifying fact—that of a similar project set on foot in regard to our own language by men of influence on the other side of the channel. A most distinguished Englishman, Sir John Hawkshaw, who is at the head of the profession of engineering in his country—a branch which can boast of so many eminent men—very recently published a pamphlet wherein he recommended the study of the French in the public schools of England as a part of the obligatory course of instruction; expressing the hope, at the same time, that in France the same measure would be adopted with regard to the English. His suggestion should most certainly be allowed to prevail in England; and we, too, should not fail to profit by it.

These ideas upon the subject of the living languages, and the necessity of learning them, of which I have here drawn merely a rough sketch, belong strictly to the domain of political economy. People, however, are generally in the habit of considering the acquisition of languages as a subject suited only to the pedagogue. This view is of course, erroneous; or, at least, greatly exaggerated. The knowledge of foreign languages, facilitating, as it does, the means of communication between men, and assisting the advance of the industries and sciences, is itself a great means to the increase of the

productive power of the individual and of society; or, in other words, to the multiplication of those riches which are the result of the labor of men. It belongs, then, to the political economist to recommend it.

A thorough acquaintance with these languages is also necessarily effective of another result which cannot be over-estimated. Nothing can do so much towards dissipating the prejudices which nations nourish against each other, and thus extinguishing the spark of national hatred. And thus it is that the knowledge of foreign languages is eminently favorable to the peace of the world—that great and inestimable object, the attainment of which should be the aim of all our efforts, not only as members of the great human family, but also as the devoted adherents of a sound, healthful political economy.

ACADEMIES OF SCIENCE.

EUROPEAN governments have for a long period thought necessary to associate with their administrations, a body of men learned in positive knowledge or science, and expert in the resolution of the problems presented by the visible creation. These institutions or Academies of Science, have been supported with varying liberality; and although this support has occasionally been grudgingly granted, no modern Christian government has been found willing to deprive itself of so important an adjunct. The membership of these bodies is variously constituted. In some instances, as at present in Berlin, it is an organization largely composed of the University professors; or, it is a distinct body consisting of a faculty with appropriate assistants, as the Royal Academy of Sweden. A third type is that of the Institute of France, of which each of its component Academies is a good epitome. These consist of a limited number of members, each of whom receives a salary, but which is not sufficient to enable them to dispense with positions in other institutions. All other national Academies are constituted either after one or the other of these models, or by various combinations of them. In all cases the membership, or the positions of trust, are supplied by the appointment from the people of persons who have

distinguished themselves, and attained the necessary standard of ability and accomplishment.

It is obvious that an Academy composed of a majority of professors of the University is not a distinct institution in any proper sense. The objects of a University and of an Academy of Science are different, and in a combination of the two, one or the other is likely to suffer. A University is primarily an institution for the instruction of young men, and the first attention of its faculty must be devoted to this end. The amount of leisure remaining will depend on the money available for the payment of assistants who shall perform part of the labor of teaching: this leisure is therefore a very uncertain quantity, yet it is the first essential for the prosecution of research. An Academy of Science is an institution of original investigation, in which the instruction is choice in quality rather than abundant in quantity. Such are the fountain heads of knowledge, the workshops to which the inquirer may go who wishes to see the commodity in process of manufacture, and thus become acquainted with the secrets of the trade. They are the producers of investigators, and of teachers as well. But there is another reason why a University of the usual kind, may not be an institution of original research. The bulk and amount of material necessary for investigation in the natural sciences is so great, that very few Universities can supply it, or the space in which to accommodate it. This department, if properly conducted, would soon reach such dimensions as to appear disproportionate to the others; and the professors in the chairs of classics, belles-lettres, history, mathematics, etc., would soon begin to inquire, as they many times have done "whereunto this thing might grow," and would doubtless present a claim for equal expansion and subsidy. So that while a department of original research in natural sciences may some day be associated with the Universities in the United States, in most localities the time is not yet.

If we examine the model of the French Institute, or better, of its Academy of Sciences, we find reasons why its organization is not well adapted to the United States. In the first place the payment of salaries to a membership of hundreds, is not to be looked for from our State governments, still less from private persons. Next, the materials for research are either furnished by the government, or are derived from the outlay of private institutions or persons. The latter source of supply being extraneous, the results constitute no

proper part of the work of the Academy. The government of the United States can only furnish material to one institution, viz : that at the National Capital. If we thus subtract the salaries of its members, and the materials on which they work, we remove the basis of coherence of the French Academy of Science, and it becomes a name only. Such would be the condition of an Academy of Science, of this kind, in any of the great cities of the United States, excepting perhaps one situated at the National Capital.

The third model, that of the Royal Swedish Academy, is much more available. It is in the first place a distinct institution, and complete within itself. None of its professors are professors in the University. Its faculty occupy themselves with original research, and are called upon to decide questions requiring especial knowledge, and are employed to take charge of exploring expeditions and surveys. It is commissioned to accumulate and take care of a museum, which serves both as a basis of investigation and a means of popular instruction. Its meetings are open to the public. Its professors receive a moderate salary, which, with other expenses, are sustained by the government.

In the last sentence, the kernel of this subject is doubtless reached. That things will always be as they have been, is the natural thought product of the human mind after it ceases to evolve new ideas, but *e pur si muove*. Academies of Science can be supported in the United States without government aid. It was once, and is still, thought by some that the Church cannot exist without alliance with the treasury of the State. In America we have proven the contrary to be true. It has been said that Universities cannot exist without State support ; but although they ought to have such aid, in many parts of our country they are as well endowed by private munificence as are those of Europe. European professors are not extravagantly paid. The members of the Faculty of Science of Stockholm receive \$2,000 per annum ; the professors of the Jardin des Plantes receive even less ; the members of the French Institute are paid 1500 francs a year. It is to be hoped that chairs of original research will never be very highly endowed in this country ; for money should not be the object of a candidate. The leisure and material for research are the highest aim of the true student, and the rewards of his calling are best known to him. Agassiz had not time to make money, and he did not lack the respect of his fellow

men. And merit will always command respect, in spite of the vulgarity which would put money in its stead.

There is nothing to prevent every State of our Union from having its academy of original scientific research. Each of them will sooner or later supply all the conditions. These are, briefly, a thriving and vigorous population, which will often put forth blossoms of genius; good schools to place good minds in possession of their tools; good morals, which restrain the lower and develop the higher tastes; and last, but not least, wealth to furnish the endowments. And if any one likes to indulge magnificent dreams, he might imagine all of these academies combined into a national Institute, having its centre in Washington, modeled in general after the political organization of our own country, with, however, a good deal more of State rights in the subordinate bodies. Certain it is that our individual States will, ere long, rival those of Europe in population, wealth, and the resources necessary for the support of all the accessories of civilization, including academies of science.

It is an error to suppose that researches in natural science are always expensive. They may be made so truly, but when the support of the investigator is guaranteed, more than half of the battle is won. Some of the most productive of the six months explorations of our western territories, have not cost over \$2500, and they have furnished the material for years of work.

The Academy of Natural Sciences of Philadelphia has recently placed itself in the advance, by adopting an organization similar to that which has been above advocated. Previously it was in every respect a voluntary association, entirely subject to the decision of the members who might be accidentally present at the meetings. As is well known, the membership does not consist of scientific men; so that the Academy may be said to have been indebted to circumstances for the amount of special knowledge of the ways and means of original research possessed by its officers. Under such an organization, it could not be expected to maintain its old leading position in the face of new institutions controlled by energetic experts; and it had in fact become little more than a library and museum of reference; and a publishing house for other institutions. But it has now created a faculty of science, which shall maintain its active prosperity without restricting in any way the opportunities it has heretofore offered for the private studies of amateurs, and for popular instruction through

its museum. While the Jardin des Plantes possesses nineteen professors, and the Royal Academy of Stockholm eleven, the Academy of Philadelphia has adopted the number of thirteen, as dividing suitably the subjects within its scope. These chairs are, I. Physics and Chemistry; II. Mineralogy; III. Geology; IV. Invertebrate Paleontology; V. Vertebrate Paleontology; VI. Cryptogamic Botany; VII. Phanerogamic Botany; VIII. Zoölogy of the Lower Invertebrata; IX. Conchology; X. Entomology; XI. Zoölogy of the Vertebrata; XII. Anthropology and Archæology; XIII. Histology and Microscopic Technology.

The creation of a limited number of important positions in an institution where the relative merits of a larger number of individual members are not absolutely settled, naturally created some apprehension in the minds of possible candidates. Nowhere is the democratic idea more ingrained than in our city, although nothing is more certain than that the smallest share of liberty is experienced under the government of the many. If many strive for the same object, each obtains but a small share; true liberty consists in a proper division of labor, where each laborer is untrammelled and protected in performing that for which he is best adapted. Applying these views to the Academy, while it will be impossible to find among its members those sufficiently accomplished to fill all of the chairs, for some of them two or more candidates may apply. The institution has however provided in its new by-laws, that each chair shall possess one or more assistantships, which, if we grant two to each chair, raises the whole number of positions to thirty-nine. These will accommodate more numerous investigators than the Academy has ever had at any one time; so that even though the assistantships should not be at once endowed, they will furnish a status to all the expert members who can devote the necessary time to the work. In some instances it will probably be necessary to look to other localities for suitable incumbents.

The highest positions in the scientific world of Europe, are those of Professor of the Faculty of Sciences in a National Academy, or Academician in the bodies of limited membership, like those of Paris and Saint Petersburg. And it has been the merits of the incumbents which have made the positions what they are; for in science, a position cannot honor an unworthy man. It is important for this fact to be borne in mind, for an opposite view seems to pre-

vail in some parts of the community. It is true that the most degrading position a man can occupy is one in which what he is, is continually contrasted with what his position requires him to be. No one who fully appreciates this fact, will desire a position which he is not competent to fill; and since men's estimate of themselves is a very uncertain quantity, the joint opinion of their peers is the necessary resort.

In order to secure good appointments, and generally efficient management, the Academy has provided that its government shall be placed in the hands of a council of twenty-three persons, of whom twelve hold office for terms of three years. This is also an important improvement, which was necessary to give stability to the new line of policy adopted, especially in respect to the paid positions of professors and assistants. The necessity for the permanency of the first-named officers, if competent, is too obvious to require more than assertion. Worthy incumbents could not be found on any other terms. The prosecution of a single object of research, if it be of any extent, requires years of application, and special collections; interruption is of course fatal to such enterprises, as to all others. Excellence can only be attained by long continued effort; and every mature original investigator possesses knowledge that will die with him, unless opportunity be given for its elaboration and publication. Really important collections cannot be expected in any other way, excepting in those cases where wealthy private students present those which they have used in the course of their studies. Philadelphia has been favored in this respect, but it is well known that wealth is not the usual privilege of students, and no institution can rely on the continuance of a membership of this kind.

The new organization promises a much more complete administration of the collections. These have been heretofore under the charge of four persons; for although others occasionally took part in their arrangement and preservation, all were under the direction of these four men. The insufficiency of this system had become obvious before the change was made. It was evident that only the departments with which these gentlemen were acquainted received proper attention, and the rest were, to a great extent, neglected, excepting in the few cases where private members gave such occasional attention as they could. In general it could be said of this

administration, that the collections of only two of the departments were keeping pace with the times, by accession of new material, although the entire museum was in a good state of preservation.

The institutions which have taken pains to accumulate material during the past fifteen or twenty years, are the ones which are now supplying to students the means of prosecuting those investigations which have given the natural sciences the position they hold to-day. The two which stand out most prominently in the United States in this respect, are of course the Smithsonian Institution at Washington, and the Museum of Comparative Zoölogy at Cambridge. If we subtract from American scientific work the results traceable to these two institutions, we have a small residue left; if we subtract from the active laborers in this field in the United States, those who have been produced by these great schools, we have but a handful left. If we seek the centers where the future investigators and teachers of our country are acquiring the knowledge and the skill necessary to make them masters, we will find them at the great museums in question; and each of these great collections has been very largely the work of a single man. If a Baird and an Agassiz can accomplish such results, a corps of interested professors ought to do more.

The accumulation and preservation of collections, are plainly only a means to an end. Were the object in view a display of nature's products to the general public, doubtless a very moderate degree of learning, combined with good business qualities, would be all that would be necessary to achieve success. Anybody who has a good understanding of the "show business" could build a monument of prosperity on the pedestal already reared by scientific men. By the adoption of the new provision for professorships, the Academy has been spared such a future; knowing that by this measure it can accomplish a double purpose. It will not cease to develop the natural sciences, and will use the material brought together for this object for exhibition to the general public. Thus investigators can accomplish both, while collectors and showmen can only succeed in the latter aim.

Constructing grand organizations is an amusement in which persons often indulge, without much hope of ever seeing them in operation, and so far they are harmless. But when ideal schemes are used for the prevention of practicable ones, the amusement of the

one becomes death to the many. These remarks are apropos to some of the very extensive plans which have been suggested in the Academy in lieu of the one adopted, for which neither the men nor the money can be found. One of these is the proposed division into sections, each having a district organization, meetings, and publications; all of which, like frontier cities, looks well on paper, but presents a few little difficulties in execution. One of these is, that in order to be effective, each section must have pecuniary support similar to that of the Academy proper, which I take to be impracticable at present. Another is, that they cannot be efficiently manned, as the specialists of the Academy are too few in number. The multiplication of meetings and of publications is useless, as there is no more than enough original production and publication to support properly those of the institution as a whole. Neither can members attend so many of the one, nor students and societies purchase so many of the other. The history of those sections which have been organized, illustrates these remarks. They have had a fitful existence, and necessarily so. Living on enthusiasm alone, their fortunes have varied with the moods of their members; and the easy dissipation of this kind of energy has resulted in suspension or reduction of meetings, change of name, etc. When reduced to their backbones, the sections are found to repose on the efforts of two or three specialists, who, filling the offices, finally constitute the meetings. Now these gentlemen are the ones for whose benefit the system of professorships has been adopted. However, the sections have a certain merit as promoting social intercourse, and serve to gratify a taste for elections with their accompanying stir, and for the holding of nominal but respectable offices. They can do no harm if confined to these activities, beyond the consumption of a certain amount of valuable time.

America has lost that provincialism in science which survived her political independence for fifty years. She has proven the strength of her wings, and essays as extended flights as any of her older sisters of the other continent. Nevertheless, the people are not as fully aware of the standing of her science as they might be; for some things done here must be brought back from over the sea, before they are fully understood. There is some ground for this, which is involved in the subject of the present article. It is not men which we lack; it is opportunity for men which we require. We must

give the right men leisure for the creation of museums suitable for original investigation. Give our men the time, and they will create their own opportunities, and with them the opportunities of many others. And we confidently rely on that public which supports churches and schools, that they will also support science by endowing original research. And the Academy of Natural Sciences of Philadelphia has adopted an organization which, if carried out according to its spirit, offers an opportunity for doing this with certainty of success second to none in our land.

E. D. COPE.

AN AUTOBIOGRAPHICAL FRAGMENT.

BY THE LATE PROF. GEO. ALLEN, LL.D.

[We publish this brief paper—with the kind permission of Mr. G. B. Keene, for whom it was written,—as it forms a sort of supplement to our notice of Dr. Allen in the last number of this magazine; and because we are sure that anything from his pen will have an interest for his friends. Having been written only for the eye of a friend, it of course lacks those last touches, without which its author would not have seen it printed; but we have thought best to give it as nearly as possible as Dr. Allen left it.]

I WAS born, December 17, 1808, at Milton, a farming and lumbering township, in the county of Chittenden, State of Vermont. I call myself, for short, a native of Burlington,—now a city,—the shire-town of the county of Chittenden, because my father removed thither, lived there during his more public life, and died there in 1844.] My father was a lawyer,—(I may add of the very highest ability, but standing still higher for his personal qualities)—and was a member of Congress during the time of Jackson and Van Buren.

My earliest instruction in Greek and Latin was given partly by students in my father's office, by students of the University of Vermont, such as may have happened to keep our district school of winters, and partly by the principal of an academy at Burlington

—Mr. Osgood—in 1821. My eldest brother, Herman, who died a Freshman in the University in September, 1820, had also been a pupil of Mr. Osgood's. In 1822, my father packed me off, by lake steamboat, to Mr. Watson, a Canadian friend, living at St. John's, Lower Canada, that he might put me where I could learn, French. Mr. W., by the advice of a Chambly friend, put me into the *Presbyterè* of the parish of St. Matthias, Pointé Olivier, opposite Chambly (on "Chambly Basin," Sorel River). The *curè* of St. Matthias was Mr. Consigny, then between fifty and sixty. My *religious* history is connected with this residence in a Catholic parish, and in the house of a priest, in no other way than that the affection I conceived for the good priest, and the observation I made of the morality and devotion of the people, had the effect of curing me of any bigotry I may possibly have had, and made me angry at anything said, in the usual strain, about Catholics and the Catholic religion. I might have said that for two or three years, from about 1821 to 1823, I was a great deal with an Englishman, Mr. John Balch, to whom my father sent me in order to read with him. He had been a printer, a teacher, and an actor, and was irregular in his habits, besides having his share of foreign mendacity; but his reading won my father's heart.

On my return, I began to study under a student of my father's, Porter, a graduate of Dartmouth, with a view to examination for admission to the University of Vermont. I was examined and admitted in August, 1823. The classical instruction was, at first, miserable, contemptible. In 1824 we had a new professor, Dr. Robertson, afterwards missionary of the P. E. Church in Greece, who really did me a great deal of good. I learned from his amiable successor, Prof. Porter. My best studies I made by myself. . . .

From the University I went home to my father's house in Milton, where he still lived, and began to study law, quite diligently. But about May, 1826, a college-friend who had started a good Academy a few miles off in Georgia, Vt., fell sick, and begged me to take his place temporarily. My father did not like it, but let me have my own way. I was thus Principal and sole teacher of an Academy for about three months. You will laugh to hear me say that I even taught Mathematics and Natural Philosophy, quite furiously. In the meantime my father had removed to Burlington.

At Commencement in August permission was given to their new

Professor of Languages—a true scholar, Joseph Torrey—to travel in Europe, and I was invited to do what I could in the way of filling his place during his absence. I filled this place from August, 1828, till April or May, 1830—*i. e.* eighteen months or so. Then began my serious classical studies. I did five years' reading during those eighteen months. No doubt I injured my health most seriously by neglect of all hygienic considerations in my excessive enthusiasm for study.

In February, 1829, I first saw a city; I went to Boston to visit my future wife. There I was very kindly treated by the celebrated George Ticknor.

I left my temporary Professorship, or Tutorship—I really had no title—and was returning to my law studies to please my father, although President Marsh was anxious I should remain in some connection with the University, when I was seized with fever and ague; and as my old-fashioned doctor did not believe in “breaking the fits,” I kept on shaking till autumn. I then went to Saint Albans, twenty-six miles northeast of Burlington, to finish my law studies under the same good old gentleman, Hon. Judge Turner, with whom my father had studied nearly thirty years before. I was admitted to the Bar, in Franklin county, in March, 1831. While I was in my father's office, afterwards, he kindly thought I had better be married at once. So I went to Boston, and was married by the Rev. Ralph Waldo Emerson, my wife's minister, on the 7th of July, 1831. We lived in my father's house till the spring of 1832, when we went into a little cottage by ourselves.

In the meanwhile, my father had been elected to Congress, and I attended to the ordinary business of the office, but did nothing active in practising law, which was wholly unsuited to my tastes. Besides, my mind was turned to other subjects. Bishop Hopkins had come—in 1832, I believe—to live in Burlington, as the first Bishop of the Diocese of Vermont. A year or so before, an Episcopal congregation had been organized in Burlington, and the Rev. George T. Chapman had been invited to take charge of it. I became one of the congregation from the beginning. My parents were of “the standing order,” the old Congregationalists, the true representatives of our Puritan ancestors; but I had always abhorred Congregationalism as I had seen it. Nevertheless, I knew nothing of Episcopalianism, and never saw a prayer-book until my room-

mate—now Professor in Michigan University, George P. Williams, LL. D.—showed me one. It was in 1824, while I was full of devotion to our then new Professor, Rev. Mr. Robertson. There being no Episcopal church or congregation, Mr. Robertson began to read the service at his boarding-house, for his own family and Mr. Fortes, his landlord, and to any Episcopalian students that might choose to attend. I bought a prayer-book, and went to Mr. Fortes' regularly every Sunday, with Williams. It was the first thing in the way of religion I had really liked. I called myself at once an Episcopalian; and when I had the opportunity, as at Saint Albans, while studying law, I always attended the Episcopal Church.

When Bishop Hopkins came to Burlington—superseding Dr. Chapman, of course—I became absolutely fascinated with him. I was confirmed by him some time in 1832, I believe. My mind was wholly absorbed by religious thoughts. I began to study Hebrew, entirely by myself, at all hours when I was not obliged to be in the office. In short, when my father came home, he saw clearly two things,—First, that I never could nor would be a lawyer,—and, Second, that I had a wish to be a minister. He, therefore, with the noblest considerateness, proposed to take care of my family and send me to the Theological Seminary in New York. But I refused to allow him to go to this extreme. I persuaded him to let me accept Bishop Hopkins' offer to take me as classical teacher in his school, "The Vermont Episcopal Institute," while going on with my theological studies. My father did not entirely like it, but consented, and he took us again into his house.

Passing over my school-experiences—when I became acquainted with Mr. Hoyt—I was ordained a Deacon, in the spring of 1834 I believe. I began to preach in the neighboring towns,—still teaching in the school,—but was completely overdone, and had a slight bleeding at the lungs. While thus disqualified, I was invited to take charge of the church in St. Albans. I went thither about September, 1834. I gradually recovered my strength, such as it was; and spent three very happy years, the happier because my wife was universally and enthusiastically beloved by my good people, and by everybody else that knew her.

In 1835 and 1836, with the return of better health—better health than I had known for years—and with a development of mind pro-

duced by the regular composition of sermons, there had come on an awakening, or a re-awakening, of a literary spirit, more intense and enthusiastic, except in the way of acquisition, than I had ever known before, or, perhaps, have known since. The foundation, however, had been laid during my student-life, in my Senior year, when Dr. James Marsh, cousin of the now celebrated George P. Marsh, had been elected President of our University. Disposed as I always was to look with respect and affection upon my Professors as in the case of Prof. Robertson, and of the Professor of Mathematics, Benedict, I have never in my life felt so much reverence and affection for any teacher as for this great and amiable man. While studying at Andover—the Theological Seminary of his denomination, the New England Congregationalists—he had met with Madame de Staël's *De l'Allemagne*, and had experienced, in reading it, as he said, a portentous revelation of power in himself. The first effort was to acquire German and study the great German authors. The next was to hunt up the works of Coleridge so far as they were then published, and to become the first real Coleridge-man in America. With all this, went of course a great amount of kindred reading. It was he who introduced me to the knowledge of Coleridge and Wordsworth, of Milton's prose works, and of the best English authors.

My various occupations, during the years from 1826 to 1835, with imperfect health, and want of mental development, had prevented me from making any serious advance in the direction thus pointed out to me by my great friend; but when my mind had been developed and excited by a year of sermon-writing, with its accompanying studies, I fell back naturally upon my old Coleridge reading as furnishing the philosophical basis of theology. The *Quarterly Review* of Charles Lamb threw me eagerly upon him, too; and

[*Cetera desunt.*]

THE SARATOGA REGATTA.

THE Intercollegiate Regatta of another year is over, and Cornell has made a clean sweep of all the prizes. The result, though quite unexpected, is not surprising, if one take the trouble to

inquire into the causes of this unprecedented success. Cornell is a college where nothing is done by halves. If a boy goes there with the desire to have what is called "a jolly good time" for three or four years, he could not be better suited at any other institution of the kind in the land. The college is founded on the system of voluntary studies and voluntary attendance on lectures, etc., and its laws are few and lax, while the breaking of them is not attended with dismissal or expulsion.

On the other hand, if a boy goes there to turn himself out a scholar, it is because he means to study and improve his opportunities. He chooses his particular branches, and attends his chosen lectures, and gets to work with a will, and in course of time comes away a ripe specialist, knowing what, when, where, and how to study. Just so it is with the Cornell oarsmen. We are told that some of the victors stand quite well in their classes. They may, and probably do, study during the winter months; but as soon as the ice is broken on Cayuga lake, and the high winter winds die away, the crews go down to the boat-house, and, giving up all study, camp out there and practice, morning and night, day in and day out, under the supervision of an able trainer. This year they have been in quarters since the first of May, and since then they have given their undivided attention to perfecting themselves as oarsmen. Is it at all wonderful that they win? Proficiency, such as theirs, is only to be reached in any department by giving up everything else for the time being, and devoting undivided every energy to a single purpose. The authorities of this world are the specialists. I do not say that Cornell's way is the right way, or should be imitated elsewhere; but only that this is the explanation of the fact that she won. It is rumored at present that Harvard, Yale, Princeton and Columbia will row together in the next Regatta, and leave Cornell out in the cold. Many will cry out against such a proceeding as an avowal of cowardice and fear of defeat at the same still victorious hands; but it is not so. There is not a college in the country, unless it be Harvard, that could compete with Cornell on anything like even terms, or with anything like equal advantages in this respect. The others say, and with perfect justice, "Boating is only a recreation with us. We can only devote to it the spare time from our college duties. With us it can never be more than an accomplishment. With you it amounts to a pro-

fession. We cannot at any time make our studies subservient to our practice in rowing. When the rowing season comes you throw studies to the winds." No one who thoroughly understands the situation can find fault with such a decision.

It is a great pity that there has not been found material in our own University of Pennsylvania within the past few years wherefrom to build a crew for Saratoga. People in general have no idea how materially excellence in athletics, as shown in games and races, helps a college in other directions. Boys have a voice in deciding to what college their fathers shall send them, and they have a great eye for the strong and victorious. When they hear that Yale beat Harvard in rowing, or that Cornell's representatives have been successful in the intercollegiate literary contests, of course they must enter either Yale or Cornell, and none other. The prospects, however, are that a crew of Philadelphia oarsmen will take part in the next regatta. All steps made in that direction will enlarge the number of students of the University, and increase its usefulness.

This is probably the last time that the regatta will be rowed over the Saratoga course. The lake has its disadvantages as a boating field, in its distance from town and its exposure to sudden squalls; and Saratoga itself has ceased to be the great center of attraction it once was. Next year will probably see the colleges divided off into territorial groups, each with its own regatta. There are too many colleges in this country to render a great national intercollegiate boat race possible. In this connection it is suggested that the colleges group themselves according to their rowing facilities, in which case Cornell would have to get up a regatta of her own.

It remains to be seen what new dress this but yesterday most fascinating and attractive amusement will assume to itself in future.

SAMUEL M. MILLER.

NEW BOOKS.

WORDS: THEIR USE AND ABUSE. By William Matthews, LL.D.
384 pp. Price \$2.00. Chicago: S. C. Griggs & Co. 1876.

In this book, Dr. Matthews has left his former field of authorship, and attempts (though very modestly, to be sure,) the dangerous

ground of words. Like Grant White, Dean Alford, the latter's reviewer, Mr. Moon, the author of "Vulgarisms, and Other Errors of Speech," *et id omne genus*, he has essayed mortal combat with the linguistic *parabantes*—that large class of persons who are too lazy or too ignorant to distinguish between *lay* and *lie*, who will use "cant" or talk in superlatives, and who defend such barbarisms as "*you was*." Unlike these writers, however, he has done much more than indulge in mere negative criticism. His volume originated in a lecture which was written "some twenty years ago," and which is now enlarged by the addition from time to time of "notes of his thoughts and readings upon it." Accordingly, it covers a ground far wider than that included by either of the writers named above. The chapters bear such titles as "The Significance of Words," "The Morality in Words," "Saxon Words or Romanic?" "The Secret of Apt Words," "The Fallacies in Words," *et cetera*. The work is really an encyclopedia of valuable truths about language and its relations to both thought and actual use.

Writing for the people, the author does not attempt to be scholarly—perhaps we should say *scholastic*—and, for the same reason, does not try to be original. His motto is *Non nova, sed novè*, and he makes no concealment of his indebtedness to others. The preface affirms it, the pages overflow with other men's names, and a list of "Principal Books Consulted" is appended. Indeed, one is inclined to believe that the reader owes but little to the *editor*, as Dr. Matthews must surely be called, in all fairness. The "twenty years" have not been wasted, but they have been spent in "busy bee" fashion only, gathering honey from other men's gardens. Readers of Angus, De Vere, Earle, Latham, Marsh, Müller, Tooke, Trench and Whitney will recognize many a favorite passage, many a remarkable example or illustration. Indeed, the book is a sort of "*omnium gatherum*," very much "padded" with quotations more or less trite, from poets, philosophers, historians—everybody, in fact, of whom one ever heard. And yet, both those readers who have never known the originals, and even those who have studied the greater writers, will find it most entertaining—the former, because they will be both interested and instructed; the latter, because they will here enjoy again the best thoughts and most clever illustrations of their favorite writers.

The paper, printing and binding are in the usual style of the books issued by the Messrs. Griggs & Co.—that is, faultless. We have heard one criticism of the book, which will doubtless sell many a copy of it: "It is so pretty, it must be a nice book."

RULES FOR A PRINTED DICTIONARY CATALOGUE. By Charles A. Cutter. Being Part II. of Public Libraries in the United States

of America. Special Report of the Bureau of Education. Washington: Government Printing Office. 1876.

Within the compass of ninety pages, the learned Librarian of the Boston Athenæum has here formulated an all but exhaustive series of rules for the methodical cataloguing of books. The main purpose which animates Mr. Cutter, namely, the elaboration of such a scheme as shall place before the student or general reader, at a glance, the literature on a given subject, or the writings of a given author, is admirably well fulfilled, as any one will be prepared to avouch who has had occasion frequently to consult the varying catalogues of the great London libraries—those of the British Museum, the South Kensington Museum, the Rolls and the Patent Offices, the Inns of Court, the Guildhall, Lambeth Palace, Dr. Williams and Sion College.

It is not, however, with any notion of being viewed as a final settlement of mooted questions, that the second part of the valuable report on libraries is limitedly circulated in advance of the first. Mr. Cutter modestly observes that it is to be expected that a first attempt to investigate the fundamental principles of cataloguing will be incomplete. He invites criticisms, objections, new problems (with or without solutions). With such assistance from librarians, he thinks, "perhaps a second edition of these hints would deserve the title—Rules."

Yet a vast proportion of the suggestions put forth are eminently practical, and reconsideration diminishes greatly the force of objections arising out of a first perusal. The criticisms which follow are offered in the spirit in which criticisms are invited; not, certainly, as indicative of faults in the scheme Mr. Cutter has with wonderful care and clearness presented.

Under "Authors" some difficulties may be experienced in giving effect to particular suggestions. Thus: "1. Make the author entry under the name of the author, whether personal or corporate, or some substitute for it. Anonymous books are to be entered under the name of the author whenever it is known," renders it doubtful whether the famous Observations on the Bills of Mortality in London would ever be traced. They are everywhere described as the work of John Graunt, and the editors of the British Museum catalogue learned, so recently as March last, that John Graunt was a pseudonym for Sir William Petty, F. R. S., instead of the name of some citizen saddler with a propensity for literature and statistics. The authority for this statement is that of no less a person than John Evelyn. But change the entry from Graunt to Petty, and who will identify the book in a catalogue? Pseudonyms must evidently play a larger part than Mr. Cutter provides for them. To cite another instance: who, that does not know by information from himself, would identify Didymus White, citizen plasterer, as John T.

Dexter, even among those who are most familiar with English economic and governmental literature.

"4. Consider the respondent or defendant of a thesis as its author," seems to conflict with "12. Reporters are usually treated as authors of reports of trials," etc; and this, again, contradicts "48. Trials may be entered only under the name of the defendant in a criminal suit, and the plaintiff in a civil suit;" while the second part of "12. Translators and editors are not to be considered as authors," would exclude from recognition the discoverer of the cypher employed by Pepys, whose work was most certainly less mechanical than that of any reporter, since it necessitated the exercise of a high order of brain power.

"6½. The designer or painter copied is the author of engravings," though good, is not wide enough to cover such a case as Lippincott's recent volume illustrating Contemporary Art, whose authors must number at the least a score.

"54. Periodicals are to be treated as anonymous, and entered under the first word," would yield no clue to inquiry for the *Journal of Discourses*, issued by the First Presidency of the Latter-Day Saints: a periodical without which no one can truthfully claim to have mastered the peculiar doctrines of the Mormons.

"57. When a title begins with a word expressive of the number which the work holds in a series, the first word, entry, or reference is to be made under the next word. . . . Evening, Morning, Daily and Weekly should be disregarded in titles of newspapers," would lead to inextricable confusion and perplexity. There have been in existence, at one time, in the English metropolis, journals properly bearing the names of *The News*, the *Daily News*, the *Morning News*, the *London News*, the *Illustrated London News*, the *Illustrated News*, the *Illustrated Weekly News*, and *Lloyd's Weekly News*. They were and are wholly distinct journals. In what way would Mr. Cutter's rule enable any one to distinguish them one from another? London has had a *Chronicle* and a *Morning Chronicle*, and has a *Daily Chronicle*; it has a *Morning Post*, a *Penny Post*, and a *Post Magazine*; it has a *Times*, a *Weekly Times*, and a *Sunday Times*, and had, also, at a former period, a *London Times* and a *New Times*; and not many years ago it boasted of a *Quarterly Review*, a *London Review*, and a *London Quarterly Review*. It may safely be asserted that no living American knows how to refer to English periodicals. The American rule is to speak of the *London Quarterly* when *The Quarterly* is meant; *The News*, when the *Daily News* is intended. The truth is that Daily, Weekly, Monthly, Quarterly, Morning and Evening are as fully parts of proper names as any day of the week in the titles of the *Saturday Review*, the *Sunday Magazine*, and the *Monday Review*; and the *Standard* and *Evening Standard*, having different sets of leading articles, would not be confounded, one with the other, anywhere outside the United States of America.

134. To distinguish editions simply by the number, name of editor, etc., means a large economy of time now wasted by readers at the British Museum. "154. Let the form represent the fold of the sheet," is a revelation to many authors of the fact that folio, quarto, octavo, etc., do not necessarily convey measurement in inches. "155. Give (under the author) a list of the contents of books containing several works," will, wherever it shall be adopted, immensely aid students who now find it necessary to hunt through the pages of bound volumes in search of some important tract not described by any formal title.

Mr. Cutter's labors in the preparation of these Rules may be estimated when it is mentioned that his principles, suggestions, subordinate headings, and illustrative cases, number in all probability from one to two thousand.

KING AND COMMONWEALTH; a History of Charles I. and the Great Rebellion. By B. Meriton Corderey and J. Surtees Philpotts. Pp. viii., 399. Crown 8vo. Philadelphia: Jos. H. Coates & Co.

It gives a large faith in the ultimate triumph of historic truth to see how the history of the period 1641-60 is now written, in contrast to the pre-Carlylian, or rather the pre-Fosterian treatment of those memorable decades. Clarendon's brilliant misrepresentations laid the bad foundation, and in spite of the efforts of Bp. Warburton, Godwin and others to correct his misstatements, his version of the story, as reproduced by Hume, Disraeli, and Southey, long retained its place as the authentic picture of the struggle by which English liberty was secured. Men whom Laud and Charles would have brought under the executioner's shears for utterance of their every-day opinions on politics or religion, looked back on Laud and Charles as martyrs for something or other very worthy of great sacrifices.

The authors of the work before us have produced a very clear and careful account of the Puritan period, which fully merits the claim to impartiality on the title-page. And their impartiality is not of the mechanical sort that scatters praise or blame with both hands; it is that of the judge who sums up both sides and pronounces without fear or favor, for one of the contestants. The net result of the whole story is laudatory of the great popular party and of its great leader Cromwell. "Those," they say, "who have interested themselves deeply in the cause of the people, must perforce judge public men by what they have done for the nation. In their roll of martyrs will come not Charles, who died from reluctance to abandon boldly a prerogative which had been proved to be untenable and pernicious, but Eliot, who died [in the Tower, 1632.] in defence of the necessary rights of the Commons house, and the ransacking of whose most secret papers, has only proved more

clearly what was clear before, that the only ends he aimed at were his country's, his God's and truth's. Those who look to national interests will hold that the first intellectual virtue of a ruler is an insight into the spirit of his time, and the first moral virtue, a sympathy with his people's hopes and fears. As men may be too good fathers if they use patronage as a vehicle of nepotism, so kings may be too good husbands, when they give or withhold their consent to the nation's wishes according to the tempers or caprices of their wives, and too good churchmen, when they put one-half their subjects without the pale of toleration. This is not the sense in which with kings as with others, 'England expects every man to do his duty.'" Of Cromwell they say, "Strange that England should have been so long deluded into believing that the noblest of her sons could have been the 'great, wicked man' that blind and bitter partisans depicted; he, a mere revolutionary demagogue, who was the restorer of order at home; he, a hard and selfish usurper, whose stout nerves quailed at last, not at the attempts of assassins, but at the agony of a daughter's suffering; he, a prince of hypocrites, whose last half-conscious murmurings were of the goodness of God and of His presence with His people!" We may note here that the fact most frequently alleged to prove that Cromwell was not religiously sincere, his question addressed on his deathbed to one of his chaplains in regard to the possibility of falling from grace, first makes its appearance in Neal's *History of the Puritans* in 1813, and that it is utterly out of keeping with the very detailed account of his dying hours, recorded by "a gentleman of his bed-chamber." Where Neal got it is a mystery.

Our authors have spent most pains on the constitutional side of the history as that which best discloses the great and permanent services rendered by the Puritans. At every step they explain very briefly, but clearly, the relation of what is done to the Constitutional past and future of the nation. But the other sides of the history, especially its military aspects, have not been neglected. Very excellent plans illustrate the principal battles, and the most untechnical reader will be at no loss to follow the thread of military narrative.

On some points there is room for correction. A grain of the old leaven sticks to them in their representation of the Puritan attitude towards amusements. But it is to be remembered that the Long Parliament decreed that Wednesday should be a half-holiday; that one of the London theatres was open almost from the conclusion of the war; and that even mixed dancing was allowed. Thus at the wedding of one of Cromwell's daughters, they danced till five in the morning. The sonnet of Milton to Vane is given, but the circumstances under which it was written are not referred to. Vane himself is characterized as the English stoic; he was far more of a mystic than that. In the note to page 258, it might have been added that the Queen was first Jermyn's mistress, and then after her husband's death, his wife.

EASTON TO BUSHKILL. THE CENTENARIAN OF MONROE COUNTY. Reminiscences of George LaBar. A. B. Burrell. Pp. 111; price, \$1.00. Philadelphia: Claxton, Remsen & Haffelfinger.

This gem in the way of typography, paper and portrait—we would we could say more in praise of the book—attracts our attention with unwelcome force. It does not merely afford us an example of modern literary faults; it is a grotesque caricature of them, and not unworthy of study for that reason. A smattering of colonial history, a few traditions, some reminiscences of the Centenarian, a little general genealogy which has no apparent *raison d'être*, and a ludicrous amount of trite, stilted moralizations upon the physiologically wonderful age of the hero—all these have sought their accidental places, without so much as the semblance of method in the eighteen tiny chapters of this multitudinously betitled book.

From the Introductory, as he poetically terms the first chapter, we quote the characteristic paragraph with which it concludes: "Can we still talk with one who heard the booming cannon of the Revolution, and who participated in the rejoicings after that trying war was over? Can we shake hands with one who saw the stately Washington? Yes, he lives! A marvelous volume, a living record of one hundred and six years! Eighteen such lives would reach back to the time of Christ. Only eighteen times for the tale to be handed down from father to son, to reach through the dim distance! Eighteen generations instead of an average of fifty-seven!"

To make this audacious supposition tenable, the reveler in exclamation-marks should have added another, to wit, that each of these centenarian sires should have had a son towards the close of his life, an unusually precocious boy, who, at the age of one or two years, should have heard and remembered the tradition. And this double physiological marvel, regularly recurring at intervals of 106 years, might have warranted double exclamation-points.

Our author is very fond of this breath-taking strain, of these thrilling hypotheses; but his periods are not always so well balanced, nor his grammar so good. Inelegant motions are magnified when we get on stilts, as, for instance, in the opening sentence of the book: "This little volume has been drawn together by frequent conversations with the aged pilgrim with whom these talks were had." The reviewer doubts whether a volume or any other thing could be "drawn together" by all the powers beneath the sun—certainly not by the curious tautology of the rest of the sentence, which rivals the famous critic's parody on Pope:

Let Observation with extensive observation
Observe mankind from China to Peru!

An amusing instance of how figures when stretched upon the rack may be tortured by the cunning inquisitor into a splendid mendacity, occurs in the 17th chapter, wherein, by dint of much "assuming"

and "deducting" and "multiplying," our author calculates that Mr. LaBar's grandfather and his two brothers "now show a living progeny of about 7,200!" Henceforth, who dares deny imagination to mathematics?

Nothing but the name LaBar, for which in former years we learned to cherish a profound respect, coupled with the aristocratic appearance of the volume, and the reputation of its publishers, could have tempted us to its perusal. But amusement and instruction are not the prerogatives of good books alone.

THE COMPLETE POETICAL WORKS OF JOHN GREENLEAF WHITTIER.

With numerous Illustrations. Centennial Edition. Great 8vo.

Pp. 297. Price, One Dollar. Boston: Jas. R. Osgood & Co. 1876.

A Centennial edition of the poet who has written our best Centennial poem, has fitness in it. Our Friendly poet is one of the great number of the faithful and the true, whose labors and utterances helped to make the past century honorable to the nation. And he has come to the opening of another, full of years and of good works, and here gathers up all his songs earlier and later, and places them within the reach of the poorest, but in a form that commends them to the most fastidious.

There are single poems in this collection, which have turned lives into new and nobler channels; and the amount of influence for good exerted by the whole collection upon the national life, only God can measure. More than any other American poet Whittier renders his country the service that Wordsworth rendered England, and for which even John Stuart Mill had reason to be thankful. He takes, that is, common life of the humblest class and excites our sympathy for those who live it by showing them to be men of like passions with us—full of the same hopes and fears, helps and trials. He does his share to lift our national life out of its sordidness, by casting over it the poetic glamour of his verse—nay, by taking away the veil from our eyes and our hearts, and showing us the poetic truth bound up in what had seemed mere sordid reality.

The illustrations of the work are those which have already appeared in various editions of the author's lesser volumes, and are of course of unequal merit. Some of the landscapes are very fine and effective, and the New England conventionalism in depicting the human face and form is not so inappropriate as when sometimes employed on foreign themes.

LIBRARY NOTES. By A. P. Russell. Pp. 401., 8vo. New York: Hurd & Houghton.

A very pleasant and chatty book, good for this hot weather. The

title well describes it ; it is the talk of a man fresh from his books, and with a pigeon-hole memory that enables him to recall a host of their best things in the right place. Sometimes he reminds us of Emerson, sometimes of Jacox, but he never succumbs to the *citirenwuth* of the latter. Without the affluence of thought and the miraculous *aperçus* of the man of Concord, Mr. Russell has his fine felicity of quotation.

FETICH IN THEOLOGY ; or, Doctrinalism Twin to Ritualism. By John Miller, Princeton, N. J. Second Edition, with letters introductory. Pp. xiii., 261. New York : Dodd & Mead.

Mr. Miller is a very brave man, and at the same time it is a sign of the times that his book has excited very little of the *odium theologicum*, with which it would once have been treated. He is a clergyman of the Presbyterian church, settled at the very headquarters of its orthodoxy, under the shadow cast by that Seminary which prides itself on its rigid adherence to the letter of the Calvinistic creed as formulated over two hundred years ago. And yet this book is for the most part a slashing review of Prof. Hodge's *Systematic Theology*, the *opus magnum* which Princeton believes has put back the shadow on the dial some two hundred years, and made adherence to seventeenth century theology possible to men of the nineteenth. It is said that Prof. Park, of Andover, and Dr. Hodge have each been waiting for years till the other should show his hand by publishing his system ; and now, it is said, we may look for a big book in which the milder Calvinism of New England will be held up in contrast with the sterner creed of Princeton. But we are sure that Prof. Park will have nothing to say of Dr. Hodge half so severe as what is here said by a clergyman of Dr. Hodge's own church and neighborhood. If Mr. Miller be right, then Dr. Hodge may be a good Christian, but he has lamentably failed to translate into intelligible terms the contents of his Christian consciousness. He has robbed faith of its true force and sense by his definition ; he has helped to consecrate as a holy garment, the cere-cloths of superstition which enwrap and entangle the limbs of the Church.

We shall not endeavor to explain to our readers the specific points made by Mr. Miller ; it is enough to have indicated to those who are interested in such topics, the drift and value of the book. But we must say that on more than one point Mr. Miller seems to be fighting for half-truths, and not doing full justice to the half-truths he criticizes. For instance he assails Dr. Hodge for making the will of God the ground of moral obligation, asserting that there is in the nature of things an essential difference between right and wrong, to which the will of God must be conformable to be a holy will. Now while the deistic conception of God is adhered to, too much stress cannot be laid on this principle. If God be conceived, that is, as purely personal spirit, transcending the universe and related to it

only as its personal first cause and its providential supervisor; then the very foundations of ethics would be undermined by the position that God could make anything that is now wrong into right, by an act of His will. But if this conception of God be supplemented by the truth of Pantheism, without its error—if God be contemplated as the personal sum of all reality, and the universe as a moment in the divine life,—if, that is, the nature of things, to which Mr. Miller appeals, be regarded as not supplementary to the conception of God but as included therein—then the contradiction between the two positions at once disappears; and we think that the theism of the New Testament fairly requires such an extension of the conceptions now current among Christian theologians.

MRS. LIMBER'S RAFFLE; or, A Church Fair and its Victims. A Short Story. New York: D. Appleton & Co. 1876.

This is a clever rebuke of the devious ways to which the most honest-minded men and women resort when the faithful are not disposed to sow plenteously. That which the direct appeal cannot effect must be managed by the indirect, and to the "Open, Sesame!" of the raffle and grab-bag the purses of young and old yield up their treasure; while of the many who share in this pious gambling probably few realize that they are committing a punishable breach of the law.

Mr. Limber, a worthy churchman of the town of Spindle, after in vain exhausting upon his wife good and reasonable argument on the side of morality, takes advantage of this popular ignorance, permits the raffle to be held at his house, and then calls in the law of the State of New York to his assistance in convincing his family and townspeople of the immoralities of these charitable agencies. Each subscriber of one dollar to the "image or effigy of the female human form, composed, as to the head and neck thereof, of wax, and as to the rest, residue and remainder thereof, of muslin, stuffed with bran, saw-dust, or other minute particles," (which being translated into language understood of the people is—wax doll,) is held in the sum of "three hundred dollars, being three times the value of the article as set up, together with the further sum of ten dollars" for costs. The claims of the law are satisfied by the host, who assumes the responsibilities of his guests, and the wax doll becomes the patron saint of a new hospital. The court scenes are full of life, and no one should regret an hour given to the unravelling of Mr. Limber's amusing stratagem to open the eyes of the wilfully blind by the vindication of the law. Had it been the object of the author to furnish an hour's pleasant reading, the book must have been considered a success; but as he had a higher aim than to amuse, we trust the moral of his fable may carry conviction to other than Spindle folk that "the devil's edge-tools are sure to cut, no matter how dexterously handled by saint or sinner."

BOOKS RECEIVED.

Primer of English Literature. By Rev. Stopford A. Brooke, M. A. Edited by John R. Green, M. A. New York: D. Appleton & Co. 1876.

Centenary Memorial of the Planting and Growth of Presbyterianism in Pennsylvania, and parts adjacent. With appendices and illustrations. Pittsburgh: Benj. Singerly. 1876. [Presbyterian Book Store.]

Gentlefolks and Others. By Julia Duhring. J. B. Lippincott & Co., Philadelphia.

Ida Craven. By Mrs. H. M. Cadell. *Leisure Hour Series*. 16mo. cloth. \$1.25. New York: Henry Holt & Co. [Porter & Coates.]

Practical Botany: Structural and Systematic. By August Koehler, M. D. Copiously illustrated. New York: Henry Holt & Co. 1876. [Porter & Coates.]

Half-Hour Recreations in Natural History. Division First. Half-Hours with Insects. Part 10. Insects as Architects. By A. S. Packard, Jr. Boston: Estes & Lauriat.

A Family Tree. By Albany de Fonblanque. Price 75 cents.

Woven of Many Threads. By Mrs. C. V. Hamilton. Price 50 cents. Boston: Estes & Lauriat. [Claxton, Remsen & Haffelfinger.]

Lectures on the Gospels. By Joseph A. Seiss, D. D. Two vols. in one. 8vo., pp. 1160. Cloth. Philadelphia: Lutheran Bookstore.

The Pilot and His Wife. By Jonas Lie, translated by Mrs. Ole Bull. Illustration. 12mo., pp. 336. Cloth, \$1.50. Chicago: S. C. Griggs & Co. [Claxton, Remsen & Haffelfinger.]

The Chinese Problem. By L. T. Townsend, D. D. 16mo., pp. 86. Paper. Boston: Lee & Shepard. [J. B. Lippincott & Co.]

Gianetto. By Lady Margaret Majendie. *Leisure Hour Series*. 16mo., pp. 180. Cloth, \$1.25. New York: Henry Holt & Co. [Porter & Coates.]

Illustrated Lessons in our Language: or How to Speak and Write Correctly. By G. P. Quackenbos, LL. D. 16mo., pp. 180. Cloth. New York: D. Appleton & Co. [Porter & Coates.]

Old Greek Life. By J. P. Mehafty. *History Primers* (Edited by J. R. Green), No. 1. Illustrations. 18mo, pp. 101. Cloth. New York: D. Appleton & Co. [Porter & Coates.]

Logic. By W. Stanley Jevons, LL. D., F. R. S. *Science Primers*, No. IX. 18mo., pp. 128. Cloth. New York: D. Appleton & Co. [Porter & Coates.]

Fire and Flame. From the German of Levin Schülcking. Translated by Eva M. Johnson. 8vo., pp. 175. Paper, 75 cts. New York: D. Appleton & Co. [Porter & Coates.]

Lippincott's Magazine for August.

THE
PENN MONTHLY.

SEPTEMBER, 1876.

THE MONTH.

THE war in the East seems virtually to have terminated; the Turkish forces having crossed the Servian frontier, and driven back the armies of Prince Milan at all points. The unanimity of the Great Powers on the point that there shall be no extension of Moslem rule in Europe, forbids any hope on the part of Turkey for the annexation of Servia. To inflict as much injury as possible while her armies are in the country, to insist on the deposition of Prince Milan, and to retain a few of the frontier fortresses as material guarantees for peace, are the limits to her vengeance, unless she take a leaf out of Prince Bismarck's book and make her enemies pay the expenses of the war. We observe that England has already entered protest against the proposal to depose Prince Milan, which it is feared would renew the old dynastic struggle between his house and that of Karageorgevitch. It is, on the face of things, difficult to see on what principles of International Law the Great Powers can so directly interfere with Turkey's treatment of a rebellious dependency; for Servia is in law a part of the Turkish Empire, as directly and formally as Oude or the territories of the Nizam belong to the English Empire in India. But it has in truth long been a well understood matter among the European powers, that International Law applies with severity only to the obligations of Christian nations among each other, and that, as an outgrowth of the old Civil Law, it applies only to those peoples who have inherited the legal tradi-

tions of the Roman Empire. To non-Christian nations, from the Mohammedans down to the Hottentots, it has no strict application. Hence the practice of vesting the consuls of Christian powers, resident outside of Christendom, with judicial authority for the due protection of Christians. The present English government have therefore no right to base their policy on the technicalities of International Law, as Mr. Disraeli seems disposed to do. Non-interference is one of its soundest maxims for most cases; but, as Mr. Gladstone well says, the very object of the Crimean War was to transfer the right of interference from Russia to Europe, by putting Turkey under the wardship of the Great Powers. And now that England has had the chance to strengthen the bulwark of Independent Christians between Russia and the road to Constantinople, Mr. Disraeli has thrown away all the rights secured by the Crimean War, and restored to Russia the prestige of being the sole champion of Eastern Christendom. On the other hand, he continues to discharge the correlative duties of the arrangement then effected, having just paid the interest on those Turkish bonds which were guaranteed by the English and French governments, on hearing that Turkey herself had no intention to pay them. Such are the astutenesses of Tory diplomacy.

THE close of the session of the English Parliament on the 15th, coincided to a day with that of Congress, and therefore provokes a comparison. It has not been an illustrious session, for the leadership has not been in the hands of men capable or desirous of carrying great measures. Mr. Disraeli explained his success in the last election by the country's desire of quiet, and its dislike of great legislation; and he seems to have set himself to soothe it with a humdrum policy. And yet we believe he has managed to give the country more just causes for irritation, and to make more bad blunders, than any of his recent predecessors during a period of equal duration. Even in the management of legislation, he has not succeeded; his paltry programme of second-rate measures has not been carried out, and at the close of the session he is obliged to throw over to the next session a considerable part of the work shaped out for the one just closed. The debates in the Commons have lacked weight; and on only a single occasion, the debate on the foreign policy in regard

to Turkey, has the interest and the value of the discussion come into comparison with the great field-days under Peel, Palmerston, and Gladstone. The bill to restrict vivisection and similar practices, the Merchant Shipping Act, and the bills amendatory of the Education and Judiciary Acts, are pretty nearly all the important measures passed during an unusually long session; while the most important measure proposed during the session, that for the investigation of the endowments of the two Universities, and their partial redistribution if thought necessary, has been postponed.

It is curious to see how the Conservatives follow the initiative of the Liberals in all these matters. The first two of the measures we have named are concessions to that spirit of philanthropy and hatred of the needless infliction of pain, which the Whigs have so long fostered as a sort of untheological religion; the next two are amendments of Liberal measures; while the last is evidently the fruit of a wise determination on the part of the friends of the Universities to set their house in moderate order, before Foster and Lowe get back to power. But it is among the possibilities that a Liberal Parliament, under the leadership of a Liberal ministry, will have to act on the recommendations of this Tory Commission.

ONE of the last debates in the English Parliament was on the conduct of the Ministry in releasing the persons held for extradition to the United States under the Treaty of 1842. Lord Granville, who brought up the question, made out very clearly, from the record of past cases, that both England and America had always acted on the principle that a prisoner thus given up may be tried for any offense, not political, of which there is evidence sufficient for his indictment. He especially showed that in two previous cases, in 1865 and 1871, England had allowed such persons to be thus put on trial in the United States without uttering a word of protest. It was conceded by Lord Derby that this had been done; but he alleged as the reason the unwillingness of the English Government, on each occasion, to add to the irritation which then existed in the United States. It is interesting to know that our temper has so much improved since the negotiation of the Treaty of Washington.

In the meantime Mr. David A. Wells, who is quite competent to speak for that side of the question, gives us what he regards as the

true reason of the recent action, and, assuming that international law imposes some restriction upon the nation to whom the prisoner is surrendered, he urges his facts as a sort of justification of England. The facts are, the surrender of Lawrence in 1875, on a charge of forgery, and his subsequent prosecution on a charge of smuggling, by a United States District Attorney, in spite of the express prohibition first of the President and then of the Attorney-General. As a matter of course this touched our English friends much more closely than any previous case; for it is impossible to feel as Englishmen do towards Protective Tariffs without coming to regard the smuggler as a guerrilla warrior in a holy cause. England's traditional policy in regard to the Spanish Tariff, her systematic promotion of smuggling through Portugal, and her protection of the business by means of Gibraltar, are evidence enough of her deepest feelings. And among the arguments against Protection, one of those used by English writers, and not by them only, is the omnipotence of the smuggler in his contest with the power and the purpose of the nation whose laws he assails.

Mr. Wells's statement shows that there has been a very great degree of disorganization in the Civil Service under Gen. Grant's administration; no English minister would have tolerated such a disobedience of orders for an instant. He dared not have done so, for he is directly responsible for the conduct of his subordinates. Our elaborate political machinery has not succeeded in placing responsibility anywhere, except in the people at large, who neither know nor care for anything beyond a few leading political issues. But in view of Lord Granville's statements and Lord Derby's concessions, it is impossible to see in the facts of the Lawrence case any justification of the conduct of the Disraeli Government, or of Mr. Wells's attack upon Judge Benedict for his refusal to admit the plea that Lawrence could only be tried for the offense for which he had been surrendered. And it is novel doctrine that after the Constitution of the United States has made the treaties with the foreign powers a part of "the supreme law of the land," and has provided for the establishment of courts for its interpretation, International Law can step in and say that those courts have no jurisdiction, even when a recognized official of the executive branch brings questions to their cognizance.

Mr. Wells is equally at fault in speaking of Protective Tariffs as

characteristic of the Middle Ages. There were a few revenue tariffs at that time, with incidental Protection; but it was, as Fichte says, the age of Cosmopolitanism, Free Trade and Barbarism. Protection, like other thoroughly national branches of policy, came in with the Reformation.

THE retirement of Secretary Bristow, and the dismissal of his principal subordinates, have been well made use of by the Democrats of the House to ventilate the grievances of the Bristow wing of the Republican party. The ex-Secretary himself very properly declined to give any testimony on the subject, since the law expressly and for wise reasons provides that the intercourse between the President and his Cabinet shall be confidential, and he could not even regard the President's request that he give evidence as releasing him from the obligation to silence. When President Grant made that request, he was evidently persuaded that if the whole story were told he would suffer in no way by the telling. All his own connection with the Whisky Ring prosecutions lay behind him as a series of transactions in which he had done his whole duty. The President is a man so defective in imagination and other social qualities, that he cannot see a fact or a group of facts from any other standpoint than his own. And we make no doubt that when Major Bluford Wilson came before the Congressional Committee and told that story from another standpoint, showing that the President had acted to the undue advantage of his friends in the whole matter, no one was more surprised at the bad look of the whole story than Gen. Grant himself. The details, that taken each by themselves seemed so excusable—especially the interference to prevent the acceptance of the confession of some of the culprits in order to convict others, and the communication to Private Secretary Babcock of the Treasury's case against him—probably took another look when read in print, and as part of an indictment of his own conduct. With the great majority of his fellow-citizens the President stands lower than before that evidence was given. But those who have known the man well enough to discern the great limitations which hedge in his really great powers, feel no surprise in seeing that he acted in precisely the way that might have been expected, and without the slightest sense of the blameworthiness of a certain class of blamable acts.

THE acquittal of ex-Secretary Belknap through the failure of more than a third of the Senate to see that an official could be legally impeached after his retirement from office, detracts nothing from the punishment inflicted upon the man, and the emphasis of public opinion in regard to his act. That of Secretary Robeson might have followed, though on grounds quite insufficient, had it not been understood that the Senate would not have consented to an adjournment till the close of his trial. That he could be convicted on the evidence presented, nobody supposes; but some odium would have clung to the Republican majority for acquitting him. The Democrats of the House made their best of the case by giving him a public drubbing on the presentation of the report, which was then quietly buried by a reference.

THE session of Congress just closed, like that of Parliament, has not been remarkable for its success in anything, unless it be *succes de scandale*. It was naturally expected that the House would pass a great number of measures for the Senate to reject; but the only important dispute between the two bodies has been on the Appropriation Bills, and the House has so far succeeded as to reduce their amount to something over \$147,000,000. If experience shows that the government can be carried on for that sum, the House deserves the credit; but if not, then the party it represents will deserve the blame of interfering with the efficiency of all or several branches of the service, chiefly for the sake of political effect. Such economy would be more clearly praiseworthy if those who fixed the amounts voted had the spending of them.

Beyond the voting of appropriations, it is hard to recall what legislation was effected during the session. Some trifling measures in regard to the silver currency were carried through both Houses, but the plan to restore silver to its old place as our national money, failed. The clause in the Resumption Act which fixes the date for the big fight between the Treasury and Wall street, has not been repealed. No measure of any sort in regard to any of the great questions before the country has been adopted. And the traces of its activity which the session has left on the Statute Book are neither numerous nor important.

And yet it has been a session of unusual energy; but the energy has taken other directions than the legislative. It has been great in

investigations; and while there has been a good deal of hunting mares' nests, and while the grand result of proving the Administration a den of thieves has not been reached, yet not a few ugly facts have been ventilated, and the popular detestation of corrupt officials has been supplied with some deserving victims. Over-much energy has also been expended in personal encounters, though these have not been so utterly devoid of public interest as were those in which General Butler and other members of recent Congresses figured. The fight over Mr. Blaine has had in it something of the excitement of such encounters fifty and sixty years back, though Mr. Frye's assault on Gov. Tilden at the very close of the session was in the worst possible taste, and finds no parallel except in Mr. Knott's assault on Mr. Blaine in the absence of the latter, and on the occasion of a compromise report, meant to smooth over the differences between the two gentlemen.

THE stress laid upon the contents of the letters in which the several candidates have accepted their nominations to the Presidency and the Vice-Presidency, strikingly indicates the personal character of the campaign. For once it is believed each party is ready to promise what the people especially want, and then to resist the performance of those promises if successful. Hence the real platforms of the campaign are the utterances not of the conventions but of their nominees, and these are scanned to ascertain what is the candidate's attitude towards the reform question, and what amount of backbone is he likely to exhibit in the resistance to his own party, which will be among his first presidential duties. For the public have lost confidence in either party as a party, and have begun to know that all merely party action—*i. e.* all action prompted by merely party considerations—is and must be selfish and ignoble. Of the two parties, its distrust of the Democrats is probably more decided and stronger; and some of the earlier doings of the recent session of Congress, as well as the attitude of most of the Democratic leaders toward the Hamburg massacre, has tended to deepen this. Of the two candidates, if they were utterly dissociated from party affiliations, Mr. Tilden would probably command more confidence, as having been much more prominent in our political history, and as having shown himself more of an able and independent man than Mr. Hayes ever

has. The result of the election will probably depend upon the relative preponderance of these two considerations in the public mind.

The letters of acceptance of Messrs. Tilden and Hendricks appeared on the same day, August 5th, being the results of a prolonged conference between the two candidates, who of course felt the absurdity of appearing before the public on the same platform, but with hostile declarations on the great financial question. Mr. Tilden's letter is the longest campaign document thus far, and excites natural apprehensions as to the magnitude of his annual messages, should he be the next occupant of the presidential chair. Its three chief topics are Economy, Resumption, and the Civil Service. What he says of the first is chiefly notable for bold assertions as to what has been and can be done, and as committing him to a Free Trade policy, though the terms used are general and at times somewhat vague. On the third topic he calls for a constitutional amendment restricting the President to a single term, and expresses his desire for a system of promotion according to seniority and capacity, such as the English, which would do some good, but not all. Until the office-holder has some legal guarantee that he is in for life, or good behavior, he will always be the political tool of any President who is partizan enough to exert himself in favor of candidates of his own way of thinking; and Mr. Tilden proposes no such guarantee.

Of course Resumption is his great theme, its discussion occupying far more than the moiety of the letter, and bearing the marks of the most careful preparation. It contains, perhaps, no departure from the letter of his earlier declarations, but its spirit is very different. The paper-money people are not held up to public scorn as rogues and repudiationists; on the contrary, the gross sinners against all financial right and law are those wicked hard-money Republicans, who fixed New Year's day of 1879 as the date for resumption, and then did nothing to bring it about. He has evidently no quarrel with those who think that resumption at that date is impossible; nor with the St. Louis platform which demands the repeal of that clause. He dwells on the absurdity of the promise without preparation, and shows that so far as the Treasury's command of coin goes, we are drifting farther, steadily farther, away from the very possibility of resumption. And he is quite well aware that the money of the nation should be elastic in volume even within the year, and also that nothing but the business needs of the nation should determine

its volume. He does not, indeed, tell us exactly how he would effect this, for all his practical proposals seem designed merely to bring paper money up to the level of gold. All this reads as if Mr. Tilden were pleading with the soft money Democrats, "Come now, and let us reason together. Why on earth should you not vote for me? Am I not as handsome as Peter Cooper or Sam Cary?" A nomination opens a hard-money man's eyes to a good many facts he had not seen before.

But Mr. Tilden not only denounces what has been done and omitted; he has the candor and the courage to tell us what he would do or omit. First, as to gold, he would accumulate it in the Treasury (1) by saving and hoarding part of the national revenue; (2) by the sale of bonds for gold abroad; (3) by checking, in some undefined way, the outflow of gold to foreign marts. How he will both lower the taxes to the minimum needed by a cheap government, as promised in the first part of his letter, and yet hoard the revenue, we do not see. How he will send less gold abroad under a Free Trade system, such as he proposes, than under Protection, is another mystery. The sale of new bonds abroad is of course feasible, provided Mr. Tilden will also give up another plan on which he lays great stress, viz: the reduction of the interest on the whole debt by one per cent. To propose that, and yet go on increasing the amount of the debt, would be absurd. And when Mr. Tilden has accumulated his gold reserve in the Treasury, what security has he that it will stay there, or even in the country? The economic laws which have drained it away from us in past years are not subject to repeal, even by a Democratic Congress. They have their root in the fact that we are an old world in our tastes and wants; a new world in our imperfect development of all the resources which meet and supply those tastes and wants. All the legislation contemplating the redress of this inequality, Mr. Tilden would sweep away on the very eve of its success; he would leave us a nation endowed with the intelligence, the likings, and the desires of London, Paris, and Berlin, but with the industries of Thibet or Canada.

Secondly, as to our paper-money, Mr. Tilden does not use the word "contraction," but seems to hint at it when he deprecates "any measure which affects the public imagination with the fear of an apprehended scarcity" of paper-money. He speaks of either funding the Treasury notes in ordinary bonds, or redeeming them

in coin as presented *after* resumption; but he proposes no general funding measure as a preliminary to resumption. He has nothing explicit to say of the various plans for a reconvertible bond, but seems to hint that its chief danger would be the production of a rapid and excessive contraction; and it seems to be as a substitute for such a bond, and as less exposed to such dangers, that he suggests that Government might pay a small yearly interest on its legal tender notes, thus making them convertible into either currency or securities. We see no wisdom in this proposal; it is always a retrograde measure to unite in the same thing (or person) functions already separated between different things (or persons).

None of these, however, meets the great practical objection to the resumption of specie payments, which has most weight with that Western constituency, for whose support Mr. Tilden is pleading. They dread resumption as changing still farther the value of the dollar to the disadvantage of the debtor class, a class greatly in the majority in all the less densely settled districts of our country. They have suffered terribly by the degree of appreciation already effected in our paper money, just as the creditor class suffered by its depreciation. Some of them, perhaps, want to see wholesale inflation, in order that they may be as well off as before contraction began; but most would be content to keep things as they are, with security for the future. On one platform, we may suggest, they might be ready even for resumption. They would not object to resumption if it meant the substitution of gold for paper at the present rate, *i. e.*, the reduction of the gold dollar by something near one-tenth of its value. Nor would they, we are convinced, object in the least to an arrangement by which the interest of the bond-holders and of those who loaned money before the fall of the greenback, would be carefully guarded, and the fullest guarantee given that the United States should never again meddle with the sense of the word "dollar" by making any form of paper money a legal tender. And this would suit not only the western farmer who groans under a mortgage, but also the eastern business man, who needs to borrow money to carry on his factory or his store, and who is obliged to keep out of the money market, and all but stop his enterprises, because resumption may add ten per cent to the principal, when the interest he pays is nine per cent. and profits vary from six to twelve. And such a reduction would be exactly parallel to what has occurred in almost

every country of Europe, viz.: the reduction of the gross value of the unit of money, without any attempt being either made or proposed to raise it again. Thus the English "pound" and the French *livre* were originally a pound weight of silver.

THE campaign has been a dull one, in consequence partly of the heat and partly, we think, of the decline of party spirit among the people. The candidates, also, are not of the sort to furnish very much scope for either ridicule or abuse. If Mr. Blaine had succeeded at Cincinnati, the newspapers of one side at the least would have been busier than they are. Some Republican papers are trying to throw obloquy on Mr. Tilden by re-printing Mr. Greeley's "Letter to a Politician," in which the former was taken to task for signing a secret circular, addressed to the Democratic party managers of the country districts of the State, and apparently designed to elicit information which would enable the managers in the city to count in the Democratic candidates. Mr. Tilden promptly denied all responsibility for the circular, declaring that his name had been appended to it without his knowledge; and, as we understood at the time, Mr. Greeley accepted the denial as a matter of course, and implicitly retracted the charge. It's a waste of yeast to put it into dough that failed to rise the first time.

A distinguished friend of Governor Tilden's takes us to task for the statement that Mr. Tilden continued to coöperate with the Tweed Ring "after its character was fully understood." He says "the fact is that Mr. Tilden was an avowed enemy of the Ring even before its character was fully understood. In a pamphlet published three years ago he fully explained his action in regard to those bandits. We here on the spot, who were intimately acquainted with the inner history of political movements, feel that it is a gross injustice to decry the conduct of one to whose vigilance, energy and acumen we are mainly indebted for the overthrow of an infernal domination." We can assure our correspondent that we have no interest in the matter but that the truth be known. What we said was, of course, the utterance of one who had no personal acquaintance with the inside of New York city politics. But we did think, and we have not yet changed our opinion, that in the estimate of the best men in America, the whole Democratic party of that city and State, and above all its

representative men like Mr. Tilden, shared in the responsibility and the disgrace of Mr. Tweed's crimes, through their prolonged passivity in regard to him. As to any special share of blame due to Mr. Tilden, we based our statement, not on the loose statements of partisan newspapers, but on what we have regarded as the most careful estimate of the whole subject accessible to the general reader, *viz*; the "Episode of Municipal Government" which ran through several numbers of *The North American Review*. The pamphlet to which our correspondent refers us seems to us much more effective as a *Tu quoque* to the Republicans of that state and city, than as a vindication of all that is defended in it. On several points its author makes distinct issues of fact with the writer we have referred to, especially in regard to the Rochester convention of 1870. But it does show that Mr. Tilden's hostility to the Tweed Ring, and its measures, did not begin at a later date, than did that of the Republican papers who generally get the credit of its overthrow.

THE constrained withdrawal of Mr. Orth's name, after his regular nomination by the Republican State Convention for Governor of Indiana, is one of the best of signs. Even the politicians are coming to understand that there are limits to the popular patience, and that men who, whether justly or unjustly, are believed to have used political influence for their personal aggrandizement, are not the "available" candidates for a sharply-contested election. The Republicans of Indiana might have found at South Bend a striking illustration of the popular temper in this regard. But by dint of taking no heed, they have to suffer from the disadvantage of an exchange of candidates before the most critical election of the year—the one which the politicians are beginning to regard as showing the set of the weather for November.

A NEW YORK newspaper has been looking up the statistics of our municipal indebtedness as it stood last New Year's day, and it reaches some conclusions of interest to Philadelphia. Our city debt is put at \$59,686,223, being ten per cent. of the valuation of property, and eighty-eight dollars per head of the population; while our taxation is twenty-one and a half per thousand. This makes us, in a comparison of property with indebtedness, freer from debt than Buffalo (18.02 per cent), Toledo (17.9), Brooklyn (15.55), St. Louis (10.77),

New York (10.60, now 12.07), Baltimore (10.50), and Cincinnati (10.42); but deeper in debt than Pittsburgh (7.51), Boston (3.58), and San Francisco (1.32). The basis of calculation, however, is somewhat defective; for, besides the bonded debt given above, we have some ten millions of floating debt, which has probably its parallel in the sister cities. On the other hand there are very considerable assets to be reckoned on the credit side of the account, and the city's credit is so good that its bonds bear a high premium.

But it is undeniable that the growth of municipal indebtedness since the war is one of the most unpromising features of our situation as a nation. The statistics in question show that the sixteen principal cities of the Union owed on New Year's day an aggregate of nearly three hundred and seventy millions, and to this New York has already added over sixteen millions. Her own debt (nearly one hundred and thirty-three millions, bearing \$8,700,000 yearly interest) and that of Brooklyn (thirty-five millions), makes well on to half the total indebtedness of the great cities; and the ratio it bears to their wealth is disguised by the fictitious system of valuation practiced in those two cities. On the other hand the rapid diminution of New York commerce by the transfer of the Western dry goods trade to Western centres, and of the export grain trade to Philadelphia and Baltimore, makes the prospect of a speedy reduction of this vast burden a very distant one. Nothing but the rapid growth of her manufactures under our Protective system augurs well for the financial future of the city.

ONE HUNDRED YEARS OF THE NORTH WEST.¹

WHAT was the North-west in 1776? It was indeed a vast wilderness, yet not quite unexplored; for more than 130 years had already passed away since those pioneers of missions and

¹The works consulted in the preparation of this article are chiefly the following, viz: Bouquet's Expedition against the Ohio Indians; Walker's History of Athens county, Ohio; Clark's Campaign in the Illinois; Schweinitz Life of Zeisberger; Am. St. Papers, Public Lands; Documents relating to the colonial history of the State of New York; Hildreth's Pioneer History; Burnet's Notes on the North-west; Mrs. Sheldon's Early History of Michigan; Benton's abridgment of the Debates in Congress, and Ten Brook's American State Universities. The last named work has naturally been used more freely than any other, and even verbal coincidences with its statements have not been excluded.

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trade among the American tribes, the Jesuits, whose very name has become a by-word both with Catholics and with Protestants, had ranged these forests, meeting all sorts of hardships with a devotion and self-denial which must excite the admiration of all who are susceptible of that emotion, and put to blush many who deem themselves in possession of a purer faith. In 1641, but 21 years after the landing of the Pilgrims on Plymouth rock, Father Raymbault and Jogues had reached the northern peninsula of Michigan, by the way of the Ottawa river and lake Simcoe. In less than 30 years later, Fathers Dabloy, Marquette and Allouez were teaching the wandering tribes of these parts, and in 1672 the two latter published a map of this region as explored by themselves, which may justly be deemed even at the present day a remarkable production.

Those vast copper fields on the upper lakes, unworked until about 30 years ago, were well-known to Allouez. Denonville, the governor of Canada, corresponded with the government of the mother country in regard to working them, as did also Sir William Johnson, a century later, with his government. Marquette reached Mackinaw in 1670, and established there the mission of St. Ignace, and this may be deemed the date of the settlement of the place, while Detroit was first settled in 1701, and is therefore nearly of the age of Philadelphia.

In 1673 M. de Frontenac, then Governor of Canada, commissioned Louis Joliet to enter upon a voyage for the discovery of the supposed great river of the west into which the streams flowing westward must discharge their waters. Joliet associated with himself, Father Marquette, and in the same year they discovered the "Father of the Waters" and floated on his bosom from the mouth of the Wisconsin to that of the Illinois. A mission was established at Kaskaskia; it is not improbable that missions had been established before in Illinois and others followed both in Illinois and Indiana; in the latter State on the St. Joseph and the Wabash.

The missions became centres for settlements by French colonists; for the government sought to establish a line of fortifications from Quebec to the gulf of Mexico. The plan is clear; it accounts, so far as the French government is concerned, for these settlements.

In 1772, a little more than four years before the Declaration of Independence, David Zeisberger, the ablest and noblest of missionaries to the American Indians, having already served for twenty-eight

years on the east side of the mountains, removed his converts and his mission family, now including as his assistant Heckewelder, whose name has become famous in missionary annals—the whole numbering twenty-eight souls—to the west of the mountains, where they pitched their tents in the valley of the Tuscarawas on the Muskingum, in the present State of Ohio, and here they enshrined the gracious system taught by them in the name which they gave one of the settlements—“*Gnadenhütten*”—*Tents of Grace*.

At this village was perpetrated in the year 1782 an atrocity unequalled in our history. These peaceful Christians were suspected of entertaining their heathen brethren who committed murders in the frontier settlements, which indeed they had done, for they could not avoid showing hospitality to those who claimed it. But they had persuaded many a party to return without executing their purposes. They neither went to war nor encouraged others to do so. But the feeling on the frontier had become too intense to be allayed without blood. A mounted party of ninety men, chiefly from the Monongahela valley, commanded by Colonel David Williamson, reached the mission settlements on the 6th of March, 1782. They found the people in alarm and getting ready for removal to Sandusky, whither Zeisberger and a portion of his Indians had already gone. Col. Williamson's party allayed their fears, declaring that they would convey them to a place of safety. On this pretense they got possession of their arms; spent the night in the same houses with them; talked with them of their common religious belief; and the Indians rejoiced and praised God for this assurance of safety. But the next day they were undeceived, brought together bound from other points to *Gnadenhütten*, placed together in two houses, the men in one, the women in the other; a vote was taken as to what should be done with them, resulting in a decision to tomahawk and scalp them all. The night of the 7th was given them to prepare for death, and what a night! Called upon in the morning to know how soon they would be ready, they replied: “We are ready now; we have committed ourselves to God, who has given us the assurance that he will receive us;” and in these two houses, called by the murderers “*Slaughter-houses*,” ninety persons—twenty-nine men, twenty-seven women and thirty-four children—were dispatched. The names are given in Zeisberger's journal—and his recent biographer has transmitted them to

us—an honor of which they were not less worthy than were the early martyrs of the Christian Church of such transmission.

This very valley of the Tuscarawas had been the theatre, eight years before Zeisberger's arrival in it in 1764, of the most touching scene of its kind which the American wilderness ever witnessed. The State of Pennsylvania had fitted out an expedition under the command of Colonel Henry Bouquet against the Indians of Ohio. Encamped in this valley, Col. Bouquet treated with the various tribes and refused all terms until the prisoners whom they had taken should have been returned. Over 200 of these were brought to the camp, whose captivities varied in length from a few weeks to nearly an average life time. Friends had accompanied the expedition to recognize and claim their lost. Recognitions and failures to recognize; hopes realized and hopes extinguished; the language and the love of civilized life exchanged for the language and the love of the savage, and leading some to escape from the very sight of their friends; reciprocal affections formed between the captors and their captives, leading the former to follow the expedition the whole way of its return, supplying the wants of their adopted and now surrendered captives, enjoying their daily recognition, and finally bidding them their last farewell—these made up the scene.

Let the reader conceive the Catholic missions with little settlements of French traders gathered around them—Detroit as the chief point in the passage of the lakes from Quebec to the Mississippi being the largest, and Mackinaw on the Island of that name, Kaskaskia and Prairie des Roches on the Mississippi, and Vincennes on the Wabash, being the others most worthy of mention; then let him add to these Zeisberger's mission settlement on the Muskingum, and he will have a sufficiently full view of the ante-Revolutionary population of the North-western territory. Some finer lines might be drawn to complete the picture, if it were indeed necessary. But every one knows what the Indians were. Besides the French traders and farmers who were stationary in the settlements, were the missionaries, who often followed the Indians in their wanderings and shared their toils and their scanty and ill-prepared fare, and a non-descript class called "*courreurs des bois*," who formed the link of connection between the wild Indians and the French settlements. These last let themselves down to a life little above that of the savages, at least while with the latter, and did not rise essentially above

it on their return to the settlements; even the Jesuit missionary, in his efforts to raise the wild men, was drawn down more than half way towards their low life, and the settled residents of the stations were far from escaping the same deterioration. Relations were formed by traders with Indian women, some of which became permanent and gave rise to families, and once within the memory of the living, when a disposition was shown to enquire into these irregularities in the Upper Peninsula of Michigan, it is said that not a few escaped this inquisition by calling in the services of clergymen.

Such was the population of the North-west before the opening of the war of the Revolution, and it was so, not merely because people did not choose to settle in this region; for George III., not long after the treaty of Paris in 1763, prohibited the granting of titles to any lands lying west of the sources of the rivers running towards the Atlantic, and during the Revolution itself, the State of Virginia forbade settlements north of the Ohio.

Here the reader may represent by a pause those years of active struggle in support of the momentous declaration made in Philadelphia on the 4th of July, 1776, until the last echoes of Yorktown die upon his ears; nay, until the stern men, impoverished and stimulated by the war, should have had time to organize new enterprises and find openings for them.

It is pertinent to ask just here, who owned this region? As king George III. closed it against settlement as above stated, he must have claimed it, as a similar act of Virginia claimed it in 1779. But previous to this latter date, in 1778, this State had also fitted out an expedition for the military occupation of the North-west, for the command of which Lieutenant-Colonel George Rogers Clark bore a commission signed by Patrick Henry as Governor. Colonel Clark, supplying the lack of other resources by shrewdness and daring, effected in a marvelous manner the capture of Kaskaskia and other points on the Mississippi, and Vincennes on the Wabash, which carried with them the whole region. The eccentricities of the commander and the marvels of his success would have been lost in the littleness of the whole movement, but for one great fact. England, in settling terms with the new nation, claimed to the Ohio river, and the Count de Vergennes was disposed to admit this claim, but the occupation of the territory by Colonel Clark was the decisive argument, and made this vast and now already immensely

wealthy section a possession of the United States and not of Great Britain.

The war of the Revolution had but just opened when the growing difficulty of meeting its expenses awakened the profoundest apprehensions. The confederation was the extreme of weakness; it had no resources of its own, and no power to enforce the contributions of the colonies. Some of these claimed immense tracts of wild land; few of them, however, had much, some had more, and these last felt most deeply the disadvantages of their position. Not a few contended that these wild lands did not belong to the colonies which claimed them, and it was even suggested that the destitute colonies might justly seize their respective shares. Maryland, for instance, compared its own position with that of Virginia, which latter, as was alleged, could support its government by the sale of its lands without taxing its citizens, and thus call in from the neighboring States settlers, who would be moved by a desire to escape the burden of taxation. Congress appealed to the favored colonies for cessions of these lands, and the utterances of discontent from the less favored ones, the general fear of internecine strifes, enforced the appeal, and the patriotism of the more favored yielded.

Virginia's claim embraced nearly the whole of the North-western Territory; that of Connecticut was next in extent; the claims of New York and Massachusetts were insignificant. Virginia made an offer of cession in 1781, reserving, as military bounty lands, about 3,500,000 acres between the Miami and Scioto rivers. The offer was accepted by Congress in 1783, and the cession was complete. Connecticut made an early offer, perhaps the earliest, but it was not satisfactory to Congress, and the cession was not completed until 1800, though the land, except the so-called "Reserve," amounting to more than 3,500,000 acres, was conveyed in 1786. The embarrassments growing out of conflicting jurisdictions had become such in 1800 that the government was surrendered entirely to Congress. The insignificant claims of New York and Massachusetts were ceded immediately after Virginia had set the example.

The Congressional act providing a government for the Northwest is a marked event in our annals; another, of no less moment, immediately followed. Without going much into the antecedents of this legislation, it will suffice to remark that the first-named act was an attempt at the solution of a new problem in our governmental

experiment. By that loose confederation which had been held together by the common peril, the war had been carried gloriously through; a few statesmen, of whom Patrick Henry was chief, sought to perpetuate this; but the current was in the opposite direction. A large territory external to the individual States had been acquired, and a precedent had been established by which this might be indefinitely extended. This must be governed, and for its government, an act already referred to was passed on the 13th of July, 1787. This was the very first acquisition of territory, whether we speak of the right of jurisdiction or that of soil, by the confederation, and the provision for its government was made while the convention which formed the constitution was in session, and but a few weeks before the completion of its work. Indeed the necessity of making provision for the government of this common territory, had in it more than had the federal constitution itself of the seeds of that centralization which has since developed itself so marvelously, gradually casting the individual States into the shade, and making of the country one of the world's greatest powers, instead of an aggregation of petty, independent, disconnected and jealous States.

In the 3d section of this act is found the clause, "Religion, morality and knowledge being necessary to good government, schools and the means of education shall be forever encouraged." This clause is happily illustrated by an act passed but fourteen days later, July 27, 1787, by which the sale of about 2,000,000 of land in south-eastern Ohio to a New England colony, was provided for, making within the tract to be sold the following reservations:

Two entire townships of good land for a university.

Lot number 16 in every township for schools.

Lot number 29 in each township for the purposes of religion.

Lots 8, 11 and 26 in each township to be reserved for the future disposition of Congress.

A similar grant on similar conditions was made to John Cleves Symmes, in 1794.

Subsequent events will reveal the power which lay behind this legislation. The war had impoverished many, and at the same time, begotten in them a spirit of heroic adventure, as well as a restlessness which sought new enterprises. The unexplored North-west offered a field for this. The office of Surveyor of this region was offered to

General Rufus Putnam, who, being otherwise occupied at the time secured the place for his friend, General Benjamin Tupper, who attempted to enter this field in 1785, but failed on account of Indian hostilities.

On the return of General Tupper from his ineffectual attempt to enter this region, they took measures to form a company by issuing a call to the people of New England. The organization was effected at the "Bunch of Grapes" tavern in Boston, in March, 1786, and the two friends, Putnam and Tupper, set out for the West, and Manasseh Cutler and Winthrop Sargeant were made its agents to seek the desired Congressional action. This latter work was done chiefly by Mr. Cutler. His influence was great, if not decisive, in the legislation providing a government for the North-west, which was chiefly in the interests of this colony. He had letters to every member of Congress, and personally conferred with as many as he deemed necessary, but seems to have been most in the company of Nathan Dane, who has generally been regarded as the most active mover in the legislation in behalf of the North-west. Mr. Dane's position in the school legislation of Massachusetts, especially in endowing academies by land grants in Maine, is of a piece with that which was done for the West at this time, and the two were doubtless of a common origin.

The reports of the two explorers of the Ohio Valley, and the two memorialists of Congress, were ready about the end of the summer of 1787, and the execution of the plan soon followed. In December of the same year, the colonists, then 45 in number, having fired a farewell salute in front of Dr. Cutler's house, in Ipswich, Massachusetts, set out on their journey, and increased afterwards to 60, in February, 1788, reached a place called Sumervill's Ferry, on the Youghiogheny river, a little above Pittsburgh, where they were joined by other arrivals, and built boats, in which on the 2d of April, they embarked and reached the mouth of the Muskingum on the 7th of the same month. The account of this long journey, could we give it in detail, would be found replete with anecdote and adventure, which, however, no reader will need to have supplied. A winter journey of nearly four months, embracing the passage of the Alleghanies and the construction of boats in those mountains, will surely give each reader's imagination leave to supply all sorts of mishaps, such as immersions in the streams forded, upsettings of wagons and sleds,

and tumbles in snow and otherwise, from the comic and serio-comic to the grave.

Here begins properly the settlement of the North-west by Anglo-Americans. An air of romance pervades the whole. Dr. Cutler had at first given the new settlement the name of Adelpia, thus intimating his desire that brotherly love should prevail there; but the settlers afterwards called it Marietta—an attempt to blend in one the two names of the unfortunate queen of France—Marie Antoinette. Pedantry cropped out also in other ridiculous names. The large public square was called Quadranoan; the small one, Capitolium; the street leading from the river to the square was called *Sacra Via*; the fort and its enclosure, *Campus Martius*.

General Arthur St. Clair, who had been president of Congress when the acts relating to the North-west were passed, was made governor of the territory, and arrived on the ground in July of the same year. The judges, Samuel H. Parsons, of Connecticut, James M. Varnum, of Massachusetts, (both directors of the New England company,) and John Cleves Symmes, of New Jersey, had arrived before the governor. Dr. Cutler visited the settlement during the same summer, having made the journey in 29 days in a sulky.

The New England colony settled on the Muskingum was not the only one of this region. In 1790 Joel Barlow circulated in Paris an offer of lands in the West for five shillings an acre, where the climate was healthful, nature beautiful and bountiful, producing almost spontaneously a supply of all animal wants, sugar running from the forest trees, candles growing upon shrubs, no taxes to pay, and no ferocious beasts to contend with. Not a few sold their property and launched all in this enterprise, carvers, gilders, coach-makers, laborers, and others as little adapted to back-woods life, were in the movement. Five hundred of these managed to reach the point on the Ohio where they supposed their lands to be situated in course of the year 1791-2.²

These people came from the capital of the world of fashion, and settled in the depths of an American wilderness. No condition could well be more forlorn. The ridiculous and the sublime met in it and were wrought into a most curious mosaic. They built two rows of log huts, each about sixteen feet square. At one end of

² Volney.

their line they erected a larger room to serve as a council chamber and ball-room. But assemblies, whether in council or for amusement, have never been found good substitutes for industry and labor, and for the kind of labor here demanded of them, they had received no schooling. This will appear in their device for getting rid of the great buttonwoods on the banks of the Ohio. They gathered as many axes and hatchets as were at hand, and attacked these monsters; they tied ropes to the branches for those otherwise unoccupied to pull upon in order to hasten the fall. But when the first tree had been worried down, a new problem was offered for solution; the tree was more in the way than it was when standing, so they proceeded to hack off the branches, and having dug a trench the length of the trunk, sunk it out of sight. The trades they had followed in Paris were at discount on the Ohio, while a little skill in husbandry and forest-life would have been in place.

Trials belong to the mind, not to the body; they are such only as they are felt to be such. The hunter and trapper—pioneers by life-long occupation—who neither know nor desire anything higher, are conscious of no privation in this kind of life. Of these, not a few fell into the westward moving current. Many not of this class who went from New York, New Jersey, Pennsylvania and Virginia, not in colonies, but in single families, poor and illiterate in the East, and but little more so in the West, suffered a less increment of hardship by their removal. Not only from this class, but from the light-hearted and unreflective Gallic race, the New England colonists were in general distinguished by a deeper earnestness and reflectiveness. They had known that they must suffer privations; but they promised themselves soon to rise to a better condition of society than that which they had left. They had made provision as they supposed for this, and they never dreamed that a whole generation would die in the wilderness before this result should be achieved. Their anticipated trials were beyond their provisions; they had many which they had not expected, of which the greatest arose from the hostility of the Indian tribes. These saw their last opportunity to repel the encroachments of the white man whose migration to the North-west was just beginning and they dedicated their waning powers to the work. Harmer's disastrous defeat in 1790, St. Clair's in 1791, and Wayne's victory in 1795, are the great public incidents of the period; but during the whole five years previous to

the treaty of Greenville, which followed Wayne's victory, Indian scouts lurked on the borders of every settlement, and whoever ventured forth from the defences, did it at the peril of his life. The whole history of the period is one of surprises and butcheries by night and by day; of captivities and escapes, and of wanderings as captives in the wilderness, by men, women and children of the settlements. A venture of a few rods—and the growing of grain enough for the subsistence of the settlers seemed to require this—often forfeited the life of the venturer. The instances are so numerous, so various in form and yet so uniform in reality, that the recital of any would mislead the mind of the reader and produce the impressions of monotony. Each of the unnumbered scenes of surprise, murder, capture and captive life, may be taken by each reader as but duplicating the narratives of Indian warfare which he has read. Some of the incidents might be new, some of them amusing, though most of them are too serious for amusement, many of them too terrible for wholesome reading. The fact that Indian scouts, prowling around the French settlement on the Ohio by night, found the people dancing their cares away, and reported to their brothers of the forest that they were soon to be attacked, for they had observed these settlers dancing the war-dance, sheds an amusing light upon the character of the Gallic race. The same may be true of Monsieur Cookie, an educated bachelor of the French settlement, without occupation, who continued his daily visits from Fort Harmer to a trap which he had set not far off. M. Cookie wore one of those steeple-crowned hats which were fashionable in France at the time of his emigration, and in this continued, contrary to warnings, to visit his trap, until one day in 1792, as this hat was seen nodding along above the undergrowth which lined his way to the trap, it was pierced an inch or two above his head by a rifle-ball. The fashion saved him; he made quick time back to the fort, and renounced trapping, but continued to wear the perforated hat in grateful memory of his escape.

A true picture of domestic and social life in these settlements for the first ten years after the New England colony reached the mouth of the Muskingum, would be one of rare interest. Not a few of the people were clad entirely in the skins of animals. Flax was grown, all the processes of its manufacture into garments for both sexes were carried on in the domestic home. It was not easy to keep sheep on

account of wolves and bears; even pig-pens had to be made into fortresses against these invaders of the settlements. Indian hostility reduced farming to the lowest demands of necessity. Among the New Englanders, indeed, there were schools, and in some instances taught by men of liberal education, for these men had really nothing else which they could do. There was during this period one clergyman in the settlement, Rev. Mr. Story, who went to church under the protection of a guard with martial music, and when he preached at other settlements than Marietta, he was, during the years of the Indian hostilities, attended by a guard. The services of the Lord's Day were even sometimes broken up by the cries of alarm and the martial music which called the men forth to repel the savage invaders. The women, to all the graces and accomplishments of mind and heart which belong to the true lady, added some not much known now among ladies. One of the daughters of Governor St. Clair is said to have been a sure shot at a squirrel's head in the top of the highest tree. Companies of the young women rowed of a summer's evening upon the river and sang, even in times of Indian troubles, when their anxious mothers, had they known it, would have been in terror at their hazarding such a distance from the fort.

Jay's treaty, negotiated in November, 1794, was in many respects so distasteful to members of Congress that it came near being rejected. This provided, among other things, for the surrender to our government of the forts then still held by British garrisons in the North-west. In urging the ratification of this treaty, Fisher Ames made one of his most moving speeches in the House of Representatives on the 28th of April, 1796. It was claimed that these garrisons stimulated the hostility of the Indians. The speech depicted the horrors of these—the indiscriminate slaughter of men, women and children, the nightly burning of the tents of peaceful settlers—and showed that these would be perpetuated if the treaty should not be ratified, and that removals to the west of the mountains would cease, as people would not choose to settle on a battle-field. The treaty was barely saved, and in accordance with it the British garrisons were withdrawn from the North-west on the 1st of June, 1796. This completed a series of events, commencing with Wayne's victory on the Maumee, which gave peace to this region, and inaugurated its unrivaled career of development, which has progressed so gloriously since that time.

Other settlements had been made on the Ohio, of which Cincinnati, first called Losantiville³, or from the fort, Fort Washington, was the most important. This was on the tract bought of the government by John Cleves Symmes, the squatting upon which, increasing as it did the otherwise necessary imperfection of the first surveys, gave rise to an utter confusion of titles. People paid for land and then found that they did not own it. The ordinary sicknesses and trials of pioneer life were all suffered here in full measure. To all these hardships were added the untold horrors of more than five years of Indian warfare, and all these taken together made the discouragements of the settlers on the Symmes tract, though unequaled in richness of soil, even greater perhaps than almost any in the North-west. Many relinquished their purchases and scattered to other parts, while Symmes, though doubtless an upright man, was crushed under his burden, and suffered the imputation of a want of integrity.

This whole region would have been covered with the purchases of land companies and filled with the various evils consequent upon their frauds and irregularities, if Congress had not checked the tendency and provided for selling directly to the individual settler. The most gigantic attempt, though unsuccessful, to purchase lands in this way, was made by Messrs. Randall & Whitney in 1795. They proposed to pay two and a half cents per acre for the whole southern peninsula of Michigan, they taking upon themselves the responsibility of extinguishing the Indian title. In order to accomplish their end they made corrupt approaches to members of Congress and supposed that they had secured the passage of their bill. "But on the sixth of January, 1796, the House resolved—78 to 18—that Robert Randall had been guilty of a contempt and breach of the privileges of the House by attempting to corrupt the integrity of its members, and should be called to the bar, reprimanded by the Speaker, and recommitted to custody until further orders from the House. Whitney was discharged because he was either less guilty or less prominent, or on some technical grounds."⁴

The Connecticut reserve was sold by the State in the autumn of

³ *L*, Licking, *os*, mouth, *anti*, opposite—the town opposite the mouth of the Licking.

⁴ American State Universities, p. 72.

1795, to a company for \$1,200,000, which sum became part of the Connecticut Common School fund. The next year surveys were commenced, and settlements followed rapidly from that date. The chief agent of the company was General Moses Cleveland, and from him the chief city on the reserve was named. The first settlers in this region were an important leaven in the Western population. The institutions of Connecticut were transplanted to this soil, and even Yale College was reproduced in miniature in the Western Reserve College, at Hudson, near Cleveland.

The well-planned system of the colonists on the Muskingum in relation to schools, and religious and social life, was subjected to great delay in the execution—delay so great that an uncultivated generation took the place, to a great extent, of the authors of the plan. Schools were indeed taught, and sometimes by men who had gone through college; but schools in the log-huts of the wilderness under the sound of spinning wheels, and on the very battle-fields of a long-continued Indian war, and in the midst of the severest contests for life's prime necessities, can accomplish but little. The plan for the State University, provided for in the legislation of Congress, was drawn by Dr. Cutler in 1800; this was with some modifications adopted in 1804 by the legislature of Ohio, then recently received into the sisterhood of States. The survey of the lands reserved for this institution was not begun until 1795. The land was to be leased, not sold, and to pay six per cent. interest on a capital of \$1.75 per acre, and but a small portion of it could have been paying its income when the law was passed in 1804. The school was long a mere academy. It produced its first graduate as a college in 1816, in the person of one of our noblest statesmen, Thomas Ewing, Secretary of the Treasury in 1841. As the first college west of the mountains, it is a great and important fact. Its influence as a school has not been inconsiderable. As the first-born of congressional legislation, it has established a precedent by which every new State is to have a great university; the influence of this action is beyond calculation or conception.

The reservation of lands for common schools made in this instance became a precedent which has been followed ever since, and is now blessing the whole western country. The reservation of every 29th section for the purposes of religion, was distinctly provided for by law, and the law is still unrepealed, but no land was

ever reserved in accordance with it, and those who have interest in the question, may perhaps still claim the fulfilment of the provision. It may also be claimed that the law reserving sections 8, 11, and 26, for the future disposition of Congress is yet unfulfilled, leaving a certain debt of Congress to the North-west. To how much better purpose might this reservation have been applied than in the granting of so large subsidies to great railroad corporations as have in some instances been given.

Of the garrisoned fortresses which in 1796 were surrendered to our government, the one at Detroit was the most important. This town was the most considerable of the French settlements in the North-west, and may be taken as a type of the others, except the one on the Ohio already described. Lying on the line of water communication between Quebec and Lake Superior, on the north, and the valley of the Mississippi on the south-west, it was the best centre of trade and the most convenient rendezvous for the Indian tribes of this whole region, though other places already mentioned were before it as to time of settlement. It was established by M. de la Mothe Cadillac in 1701, and called Fort Pontchartrain, and was chiefly a fort and trading post to the time of the English occupation, soon after the peace of 1763. It was, in all its features, domestic life, agriculture and trade, a French settlement. In it prevailed the life of the same classes of the age of Louis XIV., transplanted to an American wilderness, and modified by the circumstances. The town was surrounded by a stockade, which was from time to time extended. The dwellings were of hewn logs, of one story, with dormer windows; the furniture was of corresponding rudeness. Fleeces of wool were used for stopping cellar windows, and in similar ways. Everything in housekeeping was on the lowest scale of civilized life. Social life was in the true style of the French. Not accumulation, as so increasingly sought by Anglo-Americans, but present enjoyment was the end which was pursued by various means.

A sluggish stream called the river Savoyard—now extinguished and almost forgotten—crept along near the present site of Congress street, and entered the Detroit river within the limits of the ground now covered by the Central railroad depot. From the beautiful esplanade of the fort, parties of officers and their ladies embarked in canoes and passed down upon the bosom of the Detroit, meeting in

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their way the light craft of the Indians and the heavier ones of the Canadian boatmen, the wild and varied songs and jests and laughter and dip of the oars mingling, and borne on the conducting surface of the water by day, and by the light of the moon and the stars, giving the peculiar tinge and musical tone to the social and physical atmosphere of the place, which were long ago lost in the progress of mechanical and mercantile industry.

The winter and summer occupations of the people were unlike. Communication by the lakes and rivers being closed in winter, the missionaries, merchants and government officials—all of whom, in the season of navigation, were more or less on the move between Quebec and Mackinaw—were shut up in the towns, while the Indians were in the forests. Active business was suspended, and the gayeties of social life prevailed.

A little distance above Detroit—perhaps three miles as it then was,—there was a marsh called “le grand Marais.” This touched the river, and when frozen over, formed, with the line of ice which extended along the margin of the river, a continuous line of good sleighing, even when there was no snow. The Saturday mornings of winter were enlivened by merry girls and boys driving out on this unique way to the so-called “Hotel du Grand Marais”—a temporary structure, which was either built anew each autumn, or perhaps sometimes kept over—baskets of dishes on board the sleighs by their jingle forming an accompaniment to the gleeful jabber and laughing of the parties which overloaded the sleighs. Arrived upon the grounds, some amused themselves on the ice while others prepared the tables, and when all was ready for the execution of the main purposes, the dance began, and continued until the evening guns of the fort reminded the party that it would be prudent to return. On the Sunday following each of these entertainments, some of the young men, after morning mass, generally found their way back, and consumed the remains of the Saturday’s feast.

Other pastimes filled much of the winter season, and when spring came little was left of the earnings of the past season of business, and another must be inaugurated. The Indians came with their peltries; the long line of the waters between Quebec and the Mississippi was beset with the little craft which bore hither and thither all classes of traders, red and white, government officials and missionaries, all now released from the winter’s confinement. The

streets presented scenes of life. The miniature horses of the Indians seemed heavily burdened, but walked steadily, while their savage masters reeled under the weight of a lading which was not apparent.

The domestic occupation of the women, aside from their house-keeping, which was indifferent, was chiefly sewing for their families and for the Indian trade. The outdoor life and labors of the men were quite primitive. The timber needed was manufactured by the toilsome process of whip-sawing. The wind-mill, but little above the hand-mill of the ancients, ground their grain. Horses were rigged out for draught with harness of which elm bark formed no trifling part. Fancy could not greatly err in making up the entire machinery and utensils of domestic and outdoor life on the scale suggested by the details already given.

Education was of the lowest grade. Singularly enough more of the women than of the men could read, which is explained by their habit of more general attendance at mass—they wished to be able to read the missal service. In general only those boys were taught reading and writing who were destined to mercantile life.

Father Richard,⁵ a French Catholic priest, who came to Detroit in 1798, was, perhaps, the most prominent figure in the place. The people were at first all Catholics, and his authority was about as decisive in his parish as if it had been in France. He performed episcopal as well as the lower priestly functions. After the establishment of the territorial government in 1805, and especially the appointment of General Cass as governor, in 1813, there were some Protestants in the place who had no religious service of their own, and Father Richard was asked to supply for them this want, which he attempted to do by discoursing in the council-house at 12 o'clock of each Lord's Day, accommodating himself to his Protestant audience as well as he could. His use of English was always somewhat imperfect. A passage from a prayer which he once offered in the Legislative Council will show at once his use of English and his views of the duties of legislators: "*O Lord bless dis legislatif council and enable dem to act for de peple and not for demselfs*"—a prayer which is hereby earnestly commended to the Chaplains of Congress. Father Richard was the first delegate of Michigan as a territory in Congress, and is credited with great efficiency in caring for its interests.

⁵ Pronounced Reeshr.

a / A. J. B.

In 1817 the Protestants of Detroit obtained a pastor in the person of Rev. John Monteith, a recent graduate from Princeton Theological Seminary, and the two pastors maintained a cordiality in their intercourse which is quite exceptional. It was in this very year that the University of Michigan had its birth and christening under the name of the "Catholepistemiad," or "University of Michigania."

Of this institution Mr. Monteith held the presidency and seven professorships, and Father Richard held six professorships. Each professorship had a salary of \$12.50 per annum connected with it, so that the one gentleman received \$87.50 and the other \$75. This germ would scarcely have been heard of but for the subsequent fame of the University which grew from it.

In the year 1805 the town of Detroit within the stockade was, with the exception of two small houses, destroyed by fire. The limits enclosed by the pickets were but about two acres of ground; this ground was nearly covered by houses. The flames could not be arrested; furniture was repeatedly removed and finally saved only by being thrown into the river, where it was picked up and borne away in canoes to places of safety. The fire was on the 11th of June; on the following day the new territorial officers arrived at the scene of desolation. The Governor, General Hull and his suite, were lodged in the fort; the body of the people dwelt near by in tents; the more helpless were taken into the farm houses of the vicinity. Congress, at its next session, having been officially informed of the suffering condition of the people, authorized the governor and judges to lay out a new city, including the site, and 10,000 acres of other adjacent lands. It is said that there were but eight legal titles to lands at that time in the whole territory, for which state of things Congress provided by granting lots to all who had either owned or occupied houses in the town before the burning. These events probably wrought greater changes in the plans and prospects of the place than have ever been wrought in those of any other city of our land so long after its foundation. The eccentric Judge Woodward was the planner of the new city, and he felicitated himself on having drawn a magnificent plan, which, however, he predicted it would take eight centuries to fill up. The people of that day had no conception of those coming events which were to quicken the forward movement so as to accomplish this work, as has been done in seventy years.

In 1796 when the Indian hostilities had ceased and the British

garrisons were withdrawn from the North-west, the population of the whole territory was estimated by Governor St. Clair, after a visit to all its settlements, at 15,000 of both sexes and all ages. The towns were chiefly clusters of log huts. Cincinnati was essentially such, having at that time but fifteen frames of houses, then in an unfinished state, with stone chimneys, and not a brick in the place. The census of 1800 makes the population 45,365—a tripling in four years. But the glorious career was inaugurated, which was to cover with a population of more than 10,000,000, before the opening of the year 1876, distributed in cities from 300,000 downwards, and in industrial communities scattered over its entire surface, a region which in 1776 had in it no civilized life except a few stations established chiefly by the French, for the purpose of evangelizing the savages and trading with them, and one Moravian mission.

No details of this marvelous progress can be given in this article. If a picture of the processes could be drawn by a few strokes, it would furnish the reader's imagination with all the means of filling out the details. This region, now embracing five large States, was up to 1804 but one territory, under one government. Its villages, 500 miles asunder and connected only by bridle-paths, were neighbors. Traveling was on horseback; the streams must be forded or swam, and the first question put to one who offered a horse for sale was: "*Is he a good swimmer?*" A party of lawyers which sets out from Cincinnati to attend court in Detroit, Cleveland, Kaskaskia, or Vincennes, must have each his own horse to carry him and his port-manteau, and then there must be a common one for the baggage, consisting of the conveniences for camping out at night. In doing this, perhaps, a place must be cleared of snow, or a wild-cat expelled from a deserted hunter's cabin, or perhaps an Indian encampment, its occupants all drunk, offers its hospitality, and then the party may choose between the discomforts of any of these and those of traveling all night, this last-named alternative being frequently chosen. By night travel one of the company must act as guide, walking and leading his horse, and often feeling his way.

On the Ohio and some other rivers there was some traveling and transportation of the produce of the soil and other merchandise by water. Not only flat-boats but sail-boats were constructed for river and lake travel and trade. The plan was conceived and the first steps towards its execution were taken of building vessels at Marietta,

which should trade directly with the Atlantic cities by the way of the Ohio and Mississippi rivers, the Gulf of Mexico and the Atlantic. But the products of the soil were more than earned a second time in this transportation, and practice was divided between boating merchandise up the river from New Orleans and wheeling it over the mountains from Philadelphia. The falls of Niagara interposed an equal obstacle on the line of the lakes. Up to 1818 a single mail reached Detroit on horseback from the East, and the *Detroit Gazette*, which was first started in 1817, apologized in one of its issues of that year for its want of news, by referring to the loss of the carrier's horse in swimming a river between Cleveland and Fort Meigs. This paper in order to accommodate itself to the population was divided between the French and English languages.

It was in this very year that President Monroe arrived at Detroit on a tour,⁶ for inspecting the fortifications of our northern frontier, having made, with his suite, the trip from Buffalo in a little schooner. After having spent a few days in festivities in Detroit, the presidential party, joined by Governor Cass and General Macomb, left for the Capital through the woods of eastern Michigan and Ohio. But the day of a marvelous change was approaching. Fulton's application of steam-power to navigation had just been made, and in 1818, a year after the President's visit, the first steamer from Buffalo reached Detroit. The navigation of the Ohio and Mississippi by steam was attempted some years earlier, but cannot be deemed to have been introduced there sooner than on the lakes. But of all the events bearing on the settlement of the North-west and especially its northern portion, the construction of the Erie Canal, commenced in 1817 and completed in 1825, was most decisive. Until this time much of Western New York even was but a wilderness. From this date onward there was no bar to the movement of migration westward, except the want of population, and as the Irish and Germans were beginning to pour into the Eastern and Middle States from Europe, the younger generation of these States could remove to the West. The removal excitement was partly a healthy and partly an unhealthy one; its unhealthy rage culminated about 1837, and coincided with the excessive speculation and financial panic of that period, monuments of which were seen for thirty years in the frames

⁶ A volume entitled "The President's Tour," grew out of this trip.

of great buildings commenced but never finished, in the sites of great cities which never had any existence except on paper and in the brains of their phrenzied founders.

There was a great difference between the northern and the southern portions of this territory in regard to their relative advantages. The southern part on the Ohio and its tributaries was settled before facilities for travel and transportation had been provided. Some of the settlers, of which the colony on the Muskingum is a marked example, had intelligence, enterprise and all the elements of thrift; but their settlement was so early, and their hardships so great as to extinguish much of their ardor before the way of progress opened before them. But a large portion of the population was from New York, New Jersey, Pennsylvania and the still further South, which regions they had left when there was no school system out of New England. When these had to suffer the hardships of pioneer life as it was from 1788 to 1820—Indian wars, malarious fevers, disputed land titles, the difficulties of tree clearing and first culture of the soil, the temptation to seek in intoxication a relief of care—many of them found these trials too great for their courage, and yielded the contest, leaving the unsolved problems of their lives an inheritance to their children.

Not so in the North. Even the Connecticut reserve in Northern Ohio did not begin to be settled until after the close of Indian hostilities, and suffered no such drawbacks as the earlier settlements on the Ohio river. In Michigan, Wisconsin and Northern Illinois, the settlement by Anglo-Americans did not really begin in earnest until after steamboat navigation was established and the Erie Canal was in full operation. The settlers of these posts were chiefly from New England and New York, in the former of which there had been a public school system from the beginning, and in the latter since 1820, the benefits of which the people carried with them. The hardships of pioneer life, instead of enduring for more than an entire generation, as on the Ohio and its tributaries, were vanquished generally in a few short years.

The portrait of the pioneer in these regions, whoever may sit for it, is essentially the same. The first settler of a place—but such are few—must build his cabin alone; but a nucleus once established, those who form it instruct by letter their old neighbors designing to emigrate how to find them, meet them on their arrival at some

appointed place, take them into their houses—two families in a single room—combine to put up for the new-comers huts like their own, for which purpose two or three days often suffice, and the new tenement is entered without floor, door or windows. The time must be used in preparing a place and getting some seed into the ground; if in the spring, corn and potatoes, if towards autumn, wheat. Both are perhaps put into the earth without plowing; the planting is often done with an axe, a blow with the edge making a hole for the seed, and one with the head covering it. The house remains unfinished until the autumnal winds sing their plaintive admonitions. As there are no saw-mills, floors and doors are made of slabs split and hewn with an axe from basswood trees. The openings between the logs are stopped with a mortar of clay without lime. If the protection seems scanty, fuel at least is abundant. Now, let the reader, in imagination, look in upon the family of an evening, when the first wintry winds are whistling around the exterior of their habitation, and at many a point creeping in. There sits the husband, with a basket of his new crop of corn which he shells by hand, or a stick from a basswood trunk which he fashions into a scoop-shovel. The wife has her patching and darning. The children are offering their help to the one or the other, or reading their early lessons in Webster's Elementary by the light of the fire, enlivened by the bright blaze and the snapping of the shell-bark of the hickory, while occasional letters from their native home, with copies of its village newspaper, fill the cup of joy to its brim.

Mills and manufactories begin to spring up; schools and churches, after the models which the settlers had brought with them from the East, are soon existing in outline, and in quick succession State public school systems follow in Michigan and Wisconsin. The pioneer period was so brief that the spirit of the settlers had no time to die out or decline before material prosperity had placed them in a condition to inaugurate great enterprises. Roads, bridges, schools, churches, manufacturing and commercial establishments, and railroads to connect all these together, sprang into being as if by enchantment. It came to pass not seldom that the very boys who sat with their parents in the log cabin, labored and read by the blaze of the hickory bark, and were drawn to meeting with their mothers of a Sunday in the log schoolhouse by oxen, received an education in the college or state university of their own State, visited during vaca-

tions the parental home, now transformed from a hut to a mansion, rode to a respectable-looking church in a carriage, and were entertained evenings in the domestic circle by sisters playing upon their own pianos.

Such was the settlement of the North-west; such the difference of development, dependent not so much upon a difference in the people as in the time and the circumstances. Nay, the New England colony in south-eastern Ohio contributed more than any community of its population in the entire country to the progress of the northern portion of this region. Lewis Cass, governor of Michigan, which then included Wisconsin, from 1813 to 1830; Austin E. Wing, territorial delegate to Congress from Michigan in 1832, and prominent in all local enterprises; Warner Wing,⁷ younger brother of the latter, and equally prominent in the affairs of Michigan, having been on the bench of its Supreme Court; William Woodbridge, successively delegate from Michigan in Congress, governor of the State, and Senator in Congress; these all—and the list of even historic names might be extended—were of the New England colony in south-eastern Ohio.

It would be difficult to exaggerate the importance of this settlement—or better perhaps, the importance of the events in which it originated—in developing the progress of our now centralized government. Thirteen States, in effect nearly independent, which had been held together by a common peril until that peril was passed, had a common government too weak to put down the whisky insurrection of 1791-4 in western Pennsylvania. But common territory had been acquired first about 1783 in the North-west; in 1787 the government of this from the common centre had been provided for in connection with the New England Colony on the Muskingum, and there need be no hesitation in affirming that the acquisition of public lands outside of the individual States to be governed, and the provisions made in 1787 for their government, were the initiatory steps and far the most important ones towards that centralization of power which has been going on ever since, and has reached such a point as not only not to stand in awe before an insurrection involving a few hundred persons, but to grapple fearlessly and successfully with the most gigantic revolution of all history. The whole progress has been but a natural growth, the details of which may be

⁷ Died the present year.

omitted. The beginning being given as above, it is easy to supply the details from the establishment of a few infant settlements to the acquisition of a vast and wealthy population of ten millions, distributed among greater or smaller cities, and villages, and rural districts, bound together by lakes, rivers, and railroads, the whole suggesting the question, whether there has ever before been such a marvel of growth in all the elements of true prosperity, material, mental and moral, as that presented in the North-west during the century which closes with the present year.

ANDREW TEN BROOK. 0/

ARCHITECTURAL FASHIONS.¹

THE statement may seem trite, but it is nevertheless true, that the tastes as well as the habits of mankind, from the earliest ages, have been ever changing. All peoples have been the slaves of this law of change except some Mongolian races inhabiting Asia—and notably the Chinese. They, building a veritable wall on one side of them and an imaginary one on all other sides in the form of an embargo, by non-intercourse with other nations have succeeded in remaining stationary in their habits, dress, modes of life and tastes, for centuries.

No one can regret the tendency to change and ever constant desire for it as exhibited by the non-celestial part of mankind, for without it the world would have been a very different place of residence from that which we find it. Monotony and dreariness would have been its characteristics. As to whether mankind would not have been better—more virtuous and less tending to wickedness—without change and progression, is a question for a metaphysician or a moralist and not for an artist; for without this constant change and constant advancement there would have been no art and no artists.

Now this law of our natures, which in modern times and by common acceptance we call fashion, and which we all very well

¹ By the late Henry Augustus Sims, Architect.

understand as regulating the cut and color of our garments—this same restless spirit of change has controlled our noble art of architecture from the earliest times of which we have any record. Every new fashion in dress is not an improvement on that which preceded it, oftentimes far from it—just as in the history of architecture, at one time we find the art progressing, at other times retrograding.

The united energy, intelligence and skill of an age oftener succeeded in improving upon the mechanical structure of its buildings as compared with the age which preceded it than upon the architectural spirit—for the true spirit of art is a thing hard to handle, and will not always flourish and grow simply because we desire it. Some countries borrowed their fundamental ideas of art from those which were older and farther progressed. The Hellenic race, when it set itself about building temples, departed from the manner of the Pelasgi, the original dwellers on the soil, and imported a few ideas from Egypt. But they did not use the Egyptian fashion in its entirety, but improved upon it and produced, as the result of experiment and study for a series of years, the crowning glory of the Doric order—the Parthenon. The Greeks showed a greater fixedness in their love for the Doric than most nations have shown in their continued admiration for anything beautiful; but this no doubt was due to the simplicity and grandeur of the order which no human art can improve. But still we see their attention and their admiration drawn off at different times to their two other orders, the Ionic and the Corinthian, but not weaned from their first love, for they always returned to it. So in Rome ideas were borrowed from Greece, but the Romans failed to improve upon them as a whole. With the Romans the artistic taste and the popular taste were constantly changing. Sometimes the changes were improvements, but as often they were not; but a new feature or a new combination was admired and became popular because it was new. During the middle ages and among our own forefathers of Northern Europe, the same desire for change was manifested—sometimes progression, sometimes retrogression. The round arch and the heavy proportions of the eleventh and twelfth centuries gradually gave way to the pointed arch and lighter and more graceful proportions of the thirteenth, which style in its turn grew into or was superseded by that of the fourteenth, in which we see greater elaboration, but less true beauty, than in its predecessor. Gradually the style changed into the perpendicular,

wherein we see little left of the delicate art of the thirteenth century. These fashions in architecture, whether they were bad or good, were universal. There was but one style at a time, and everything which was built was built in the style of the day. Down to the time of the Protestant Reformation the architecture of Northern Europe was a true living art, as that of Greece had been before it. The designer of a building worked hand in hand with his masons and carpenters to render the design and execution of the building as perfect as his art and skill could make it. And I firmly believe that it is only by such a co-operative system that great and noble architecture is produced. The architect and the workman must both use their brains to the same end, and not as we have it in modern times, —the one using his brains, the other only his hands.

In each of these eras the style or fashion of the day was the only style admired, and we can well imagine the old builders of those times (say for instance, when the perpendicular was the fashion,) gazing upon the work of their predecessors of the thirteenth century, and sneeringly pronouncing it very old-fashioned and as a consequence very ugly; and as complacently admiring the newest thing out in the way of a pinnacle or the most fashionable pattern of window tracery. And in the same way, and guided by the same law of fashion, the Batty Langleys of the last century, while perpetrating the vilest abominations themselves, looked contemptuously upon such glorious piles as Salisbury, Peterborough and Lincoln, which the spirit of our day and true art feeling teach us to admire, while it shows us the short-comings and defects of the debased renaissance.

I think that what is known as the Batty Langley style was the last which was practised simultaneously throughout the civilized world. It had its different phases in different countries, but was substantially the same style throughout. It was not a true art, as had been the pointed styles which had preceded it, but was a style adopted from another century and another country, and rendered clumsy and ugly by the blundering hands of architects. The earlier renaissance architects had imported the Palladian style, but were skillful enough to endow it with some grace. But Inigo Jones and Sir Christopher Wren had departed, and their taste and skill had departed with them. This caricature of Palladian renaissance was at its lowest state of depraved taste in Langley's time, and much of the work before and after his time is known by his name, because he

was *par excellence* the fashionable London architect of his day, and enjoyed a large and lucrative practice. He rejoiced in all the ugliness and bad art of broken pediments, ogee pediments and such other abominations—fortunately almost unknown in the practice of our day, although perhaps we use features nearly as bad.

Dr. John Kearsley, an amateur architect, but a man of much cultivation, has left us here in Philadelphia the only specimens which we have of this phase of the renaissance in Christ Church, St. Peter's Church and the State House. But Dr. Kearsley's architecture is pure of its kind, and free from the more glaring faults of his school. With nothing older to revere, we willingly prize and esteem his works, and trust that they will long continue not only as mementoes of his skill, but as evidences of the desire of the early settlers of our city for something more than Quaker plainness.

The fashion for this kind of renaissance, after a long reign, finally had to give way. Stuart and others directed attention to the beauties of Greek art. We have many evidences and samples of this early Greek revival here in Philadelphia, in the works of Latrobe, Strickland and others. It was coldly correct in its character, but lacked the refined beauty, the delicately curved mouldings, and the optical correctness of lines which the works of Charles Robert Cockerell, Sir Robert Smirke and others in England, and Mr. Thomas W. Walter here in America, have taught us to admire in Greek art, and appreciate as the chief source of its elegance.

The fashionable architectural taste in England and this country is presently somewhat alienated from Greek, to run after a new thing. Sir Charles Barry, then plain Mr. Barry, introduced that very chaste style of the Florentine and Roman palaces which he so successfully carried out in the Travelers' Club of London. Mr. Sidney Smirke, departing from the Greek taste of Sir Robert, his father, takes up another phase of this Italian cinque cento architecture, erecting the Carleton Club and other buildings in it. Other architects follow, and Italian became fashionable on both sides of the Atlantic. It is rendered in stone, in brick, in wood and in composition; and Italian is pronounced just the thing for a dwelling, whether as a street house or a country villa. The plainer forms of this Italian style certainly offer great advantages in our modern work over the architectures of ancient Greece and Rome—in being less expensive and much more pliable and accommodating. In the hands of such artists as the

elder Barry they are capable of refined and elegant effects; but like the reproductions of the architecture of old Greece they are only effective in the hands of such men. These architectures which are governed by "cast-iron rules" as to general proportions and details, appear to be so easily handled that every bungling builder thinks that he can use them—not knowing that it is *feeling* and not the details which make them beautiful. Ignorant of the existence of this feeling and spirit, they attempt to use this class of architectures where a true artist would be afraid.

"Fools rush in where angels fear to tread"—

In all the fine arts, those achievements which to the uninitiated world appear to be the easiest are oftentimes the hardest. When the Pope Benedict IX. wished to see designs from the Tuscan artists, Giotto, with the greatest quickness, drew with one stroke of his pencil a circle so round and so perfectly equal, that round as Giotto's O has ever afterwards been proverbial. The Pope understood from this the genius of the artist, and without further test employed him at Rome. There is scarcely a schoolboy in our city but thinks that he can make a very good attempt at a free-hand circle.

But little had been done in the mediæval styles from the earliest dawn of the renaissance, and that little had been very bad. The Pugins, father and son, stood forth as their champion. The rapid growth for a taste for Gothic art in Great Britain is mainly due to Augustus Welby Pugin. In his numerous writings he drew attention to its leading points, showing that it is suited to the ideas of the Christian faith—to the habits and characters peculiar to the Teutonic races—and to the materials and climate of northern countries; that it is not a manner of building suited only for churches, but equally for dwellings, shops and other buildings for secular purposes. Pugin had many followers, and Gothic soon became a powerful suitor for popular favor.

While the Italian and Gothic schools were fighting for the ascendancy in England, many clever artists in Paris were moulding and modifying ancient Greek ideas, to adapt them to modern requirements, modern cities and modern purses.

Throwing aside the fixed rules as to proportions which governed Greek architecture, and reversing the Greek rule, by making the interior of the building the first consideration rather than the exter-

ior, they simply inspired themselves with Greek feeling and severity, and uniting them with mediæval common-sense, the result is the style which we now know as the Neo-Grec. I do not think that any amount of analytical examination of the French-Greek will detect anything of the ancient Greek art beyond the spirit and feeling which regulates the purely ornamental features. All else is northern in its character. "The ancient Greeks erected their buildings for external effect more than for internal use. Consequently their architects were in no way conditioned in their designs by the requirements of utility. Their buildings were as purely ideal in their uses as in their ornamentation. This limit of the object was no doubt to a great extent the immediate cause which enabled them to attain such marvelous perfection in their external architecture." They worshiped the outside of a building, and sacrificed every consideration to that view. The mediæval and modern view is the reverse of this, and no style of building can be general or popular in our day which does not further the idea as a fundamental one that we live inside our houses, not outside.

It is generally thought that we have no true architecture in our day, but that we only build in the styles of by-gone times without exercising the inventive faculties—that is to say, we simply copy. This is scarcely true. We certainly have no universal style, but several of the styles now popular have in them a vitality of the right sort. As an instance take the Neo-Grec. It is eclectic, as all art has been from the earliest times of which we have any record. It has in it Greek feeling, Gothic straightforwardness and common-sense, together with suggestions of Roman, Romanesque, and of almost every other phase of architecture which has preceded it—all well embodied into a harmonious whole. It was not the production of one man, as nothing praiseworthy as a novelty in architecture ever was or ever will be, but was the result of the labors and studies of a whole generation of French architects and workmen laboring to the same end. The chief fault of the Neo-Grec, looking at it from a purely aesthetic point of view, is its want of *chiaro oscuro*. It needs more of the heavy vertical shadows of the thirteenth century, and of the roof shadows of the later Italian and other southern architectures. To interfere with the flatness of its mouldings on wall surfaces would no doubt detract from its essential spirit in the eyes of a Greek, but would improve it in the

eyes of a Goth. It needs also more picturesqueness in its sky-lines than is usually seen, to render it entirely satisfactory. But whether we each individually admire all its peculiarities, or whether to us they are crudities and blemishes, still as an art it is living and vital.

So also is the Gothic architecture of our day a living art. The time was when it was not—when it was used just as was the Greek, sixty years ago—when every feature was copied from some existing example. To-day it is not so, and it is now used with all the vigor and all the thought and invention that could be exercised with any art. In saying this I do not wish to be understood to say that all the parodies of mediæval art which we constantly see rising in our midst are true art of any kind. Pointed arches and buttresses do not constitute Gothic architecture, and it can exist in perfect purity without them. Gothic is a spirit in design and construction permeating the whole edifice, from the lowest footing course to the highest point of the roof. The salient points in this system may be briefly enumerated as, *First*, the subordination of the exterior of a building to the interior. *Second*, truth of purpose and of construction throughout. *Third*, picturesqueness of the effect of the whole in the matter of general proportion and sky-line, rather than prettiness of any particular part to the detriment of the rest. *Fourth*, perfect freedom in the arrangement and proportion of parts, that is to say as regards symmetry; but, preserving a general balance of parts, perfect freedom in the arrangement, form and size of openings for doors and windows, so long as good construction is secured. *Fifth*, the general use of the arch over openings, the preference being given to such as are struck from two radical points, as having less tendency to thrust laterally. *Sixth*, allowing the mode of construction to show itself directly or indirectly in the work. *Seventh*, ornamentation of the construction rather than the construction of the ornamentation.

At the time the use of mediæval architecture was revived, about forty years ago, it was practised by architects who had been brought up to the classic styles as they were followed at the beginning of the century. They used Gothic slavishly, as they had been taught to use the orders—never thinking of originality—making their designs a patchwork of features, such as doors, windows, buttresses, pinnacles, etc., carefully copied from old examples. An architect who dared to use a feature which was a creation of his own was held up

to condemnation. That time has long since passed away, and the Gothic of to-day is a true and living art in the hands of such men as Viollet-le-Duc, Frederick Schmidt, of Vienna, and William Burger, George Edmund Street, Edward W. Godwin and Sir Gilbert Scott, of London. They each impress their individuality on their works, and beyond the spirit which influenced and guided the mediæval builders, avail themselves of little else. The wants of modern times are so essentially different from those of either England or France in the thirteenth or fourteenth centuries, that the buildings of those eras are to a great extent unsuited to us now. A careful examination of the work of the best Gothicists of our day and a comparison of them with the works of old, will show that nineteenth-century Gothic architecture is as essentially different in its character and parts from that of the thirteenth or fourteenth centuries as the Neo-Grec is from the Ancient Greek of the age of Pericles.

There is a view to be taken of these two schools of modern architecture which should not be forgotten. It is that although in many points they approach each other, still in their essential spirit they are widely different, and no individual architect can practice them both successfully. I do not mean successfully in a pecuniary point of view, for those accommodating architects who profess to practice any or all styles are usually those who get the greatest number of commissions and make most money. But making money does not mean producing good art. Those architects who pretend to practice two styles as essentially different as Greek and Gothic as they now stand, can no more produce the best art in either, than a clergyman can be a successful preacher and profound theologian while professing to be both a trinitarian and a unitarian, or a physician can be a successful practitioner professing to be both an allopathist and a homeopathist. No, an architect to be a true artist and to be capable of producing what is really good, and what will stand the criticism of a succeeding generation, must confine himself to one school. This, I take it, is the great fault with our American architecture—that we architects do not confine ourselves each to a single school sufficiently to be thoroughly imbued with its principles and tenets. This fault is not so apparent now as it was some years ago; and little by little, as the country grows older, as our art becomes more appreciated and our productions are looked at with more critical eyes, we

will see the necessity of confining ourselves each to a single style. A jack of all trades is a master of none.

Having now briefly spoken of several of the architectural fashions of the past and of the present, it may not be amiss to add a few words touching the probable character of the architecture of the future. Art-writers and thinkers in Europe write in the belief that the time is not far distant when America will exercise an influence which will be felt in the architecture of the world, and that if any distinctly new ideas are to appear that they will originate here. We have no grand old buildings in America to educate our popular taste, so the popular taste, as we all know, is to a great extent uneducated. The presence of old and large structures has unquestionably a great influence upon the architects of Europe in awing them into subserviency to their style and spirit. We are free from this influence directly; but indirectly, of course, the influence is distinctly felt, and it is hard as we all know to originate an idea which is not based upon something we have seen in the old world, either on the ground or by photograph or print. Not only that, but in the absence of periodicals of our own, we look to Europe for the current architectural literature of the day, and the works and opinions of the master minds of the old world cannot but influence us more or less. Of the nations of Europe we are in more intimate communications with England and France than with the others—excepting perhaps the many of our number who look to Germany as the fatherland. The popular architecture of to-day in Great Britain is unquestionably the mediæval, based upon the thirteenth century type of England and France. Four-fifths of the buildings being erected in Great Britain for secular purposes, to say nothing of ecclesiastical structures, are in this style, or in styles akin to it. In France the Neo-Grec is without doubt the national style, more or less marked with its distinctive peculiarities.

I think that there can be very little doubt but that our American architecture of the immediate future will be tintured to a certain extent by both these schools—for although an architect cannot practise both successfully for the interests and well-being of his art, still a whole generation can unconsciously and imperceptibly merge the two into one, which will be the offspring of both, and partaker of some of the distinctive characteristics of each.

An influence is likely to be felt, and powerfully too, in the architec-

ture of the future, by the use of iron. It must be used in various positions. In the matter of street fronts alone it is fast becoming popular, and for a variety of reasons; chiefly no doubt because of its cheapness of cost as compared with the effect produced. Thus far there has been little attempt made to give it a distinctive character, and generally forms peculiar to stone of one kind or other have been reproduced in it, the architects conducting the work being satisfied to indicate the material simply by the use of divers colors of paints and much gilding. It is undoubtedly a difficult material to handle artistically, and requires a special treatment—different from stone or ceramic material of any kind. Architects have not as yet devoted sufficient study to it to do it justice. The simple question of color or facial decoration does not meet the end. The treatment must be deeper than the face—must be structural—of a kind to express the character not only of the material but of its mode of use. The party colors and gilding are very well as an adjunct but will not take the place of the structural forms.

M. Henri Taine, and indeed all other art critics whose opinions carry weight, hold the doctrine that two eras in the architectural history of the world stand out in prominence and have exerted the greatest influence in the age following them. These eras are the best age of Greece, that of the time of Pericles, and the thirteenth century in France and England. The architectures of these eras and countries approached nearer to perfection than has ever been seen before or since, or probably will ever be seen again. They are the architectures which employ the most pleasing forms—forms with which we are least likely to weary from long continued contemplation. Now I think that we are fortunate in our day that the two schools of art which hold the highest place and exert the most powerful influence should be based upon these two most perfect eras. All the architecture of the past has been based upon that which preceded it, and it is almost certain that what has happened before will happen again, and that the architectures of the future will be founded upon the features and characteristics of the most prominent styles now in popular favor. To which of the two schools I have mentioned is it most likely to lean?

The appreciation for the beautiful, in the mass of the American people, is not very keen. None of the Teutonic races see and appreciate beauty as do the Latin races. The beauty of Greek archi-

ecture is of the highest and most delicate order—intellectual, severe and refined, rather than strikingly apparent. The extreme beauty of the Parthenon is only appreciated by minds of the highest art culture, and grows upon such minds the longer it is contemplated. The beauty of Amiens and Chartres, and of Salisbury and Lincoln, is strongly marked. The forms of the ornamental features are strikingly apparent to every beholder. There is something in them, besides, which draws us to them with a peculiar interest; for they were the fruits of the faith and religious earnestness of our own race and of Christians. We feel towards them as we can never feel towards the structures of the Greeks, which have comedown to us as tangible evidences of the devotion of an ancient people to their false gods.

The question is often thoughtfully asked whether there is ever **again** to be an *entirely* new style of architecture, an universal style used **simultaneously** throughout the civilized world, as in the middle age—or whether we **are to go on** repeating and turning over and recasting the same old styles, **different** in different countries, according to national tastes, religions, and so forth.

I call this a thoughtless question, because it is well known that all the great architecture which ever was, was the fruit of the united religious earnestness of a community, of a nation, of an age. All the greatest architecture has not only commenced in temples, but the temples have surpassed their predecessors in size, in elegance and in grandeur. This has been equally true of nations worshiping the one true God, as of those worshiping fabulous myths as gods. Before the Greeks commenced building temples they built only huts and lived in them. After they learned to build temples they erected other buildings well-proportioned, well-constructed and grand, but less so than the temples. The northern Europeans of the middle age learned their cunning arts, also, in their temples. In each of these eras the whole community, from the highest to the lowest, was united in the one creed, both in religion and generally in politics. Now is it probable that unless we see this state of united feeling again we shall see *entirely* new and fresh ideas in architecture? History repeats itself from age to age, and after the earlier centuries had passed, presented no new feature which had not had its parallel. Is it probable that, until the Millennium, mankind will again be

united in religion or in anything else, as it was in simpler (and better) times?

When the Millennium comes we are taught to believe that a new order of things will commence. Then universal righteousness and faith and purity will reign undisturbed, with no more wars, nor quarreling, nor licentiousness, nor jealousy, nor wickedness, nor any of those impurities with which the world is now filled. Then the wolf "shall dwell with the lamb, and the leopard shall lie down with the kid, and the calf, and the young lion, and the fatling together, and a little child shall lead them."

When that era of purity and innocence comes, we may hope to see, if ever, an entirely new and grand style in our art. Is it probable that modern French fashions in architecture or in anything else will be popular then, any more than those of old Greece in her worship of Jupiter and Minerva and Diana?

CONCERNING ZEAL.

IN several of his recent works Mr. Matthew Arnold has striven to impress upon us our very great indebtedness to the Hebrew nation and its literature for the conception of *righteousness* as the largest of life's interests. His teaching has been, for the more part of readers, deprived of its due force by the advocacy of certain negative positions with which he has associated it. But Mr. Arnold deserves everybody's thanks for the fervent and convincing way in which he has presented his main theme, and for the rare literary skill with which he has divested a grand conception of its accidental and temporary elements, and presented it to the public mind in its naked simplicity and greatness. It is our present purpose to call attention to another of those Hebrew conceptions, but one which that people possesses in common with the Arabs, and which has played a still more prominent part in Mohammedan than in Jewish or Christian history—the conception of *zeal*. As we shall see, the present attitude of the Mohammedan world towards Christendom connects itself directly with the subject, and great consequences are

expected from it in the judgment of those who have the best right to an opinion on Asiatic politics.

In the Hebrew conception of godliness, zeal is an essential element. Common sense and balance of judgment did not rank so highly with them as with our colder Saxon dispositions. It is a fact now generally recognized that the Shemitic races, and especially the Hebraic branch, are above all things a religious race; that they are especially gifted with a genius for insight into the divine. When the Hebrews believed, it was with all their heart, soul, mind and strength; and in the earnestness of their belief they shrank from no sacrifice. Seeley well reproduces their thought when he says, "No virtue is safe that is not enthusiastic." And when they would express the sort and degree of their passionate regard for what concerned the divine glory, they chose the word *jealousy* (*kin'ah*), as if to say that it was no less intense or overmastering than the passion which agitates the lover's breast when he thinks he has reason to doubt that he holds the first place in the affections of his mistress. And, in the Hebrew conception, the passion thus expressed was as divine as it was human. Whatever else his God was, He was "a jealous God," and every true worshiper was equally jealous for God.

In earlier Hebrew history this *kin'ah* is seen rather in the acts of this and that Israelite than in their utterances. In simpler and less self-conscious periods men speak but little of what passes within their own breasts; we trace their mental operations in their acts. And Hebrew zeal or jealousy is ever present all through that early history. It bursts out into the strongest and fiercest acts; it is the mainspring of the most notable lives that illumine the history by their vigor and their achievements. Moses, Phineas, Joshua, Ehud, Deborah, Gideon, Samson, Samuel, Saul, David—in each and all it is the masterful impulse of the lifetime, or of the inspired moment, which carried them beyond themselves; it either harmonizes with the whole tenor of their lives, or, as with Samson and Saul, breaks in upon them by fitful flashes, and thus stands in marked contrast to their more ordinary moments. And to the old Hebrews there could be but one explanation—"the hand of the Lord was upon him," "the breath of the Lord carried him away,"—the inspiration of a jealous God wrought in them this jealousy. Sometimes the acts thus inspired—as when the Psalmist king danced in almost naked-

ness before the Ark of the Covenant—are strange and startling merely; sometimes—as when Samuel hews Agag in pieces—they are full of the fierce spirit of the old law, and are such as tax the apologetic powers of those who regard everything told in the Bible as held up to our admiring approval.

From the days of Solomon we begin to find an anti-zealous or critical spirit springing up even among the Israelites. From this time we hear of “the scorner” and his sayings. And yet this is the period which witnesses the beginning of the grandest and purest outburst of Hebrew zeal, in the rise of the prophetic order. Anticipations of the prophet (*nabi*) there had been in the seer (*ro'eh* and *chozeh*), and even the first of the prophets were a sort of transition from the seer to the *nabi* of later history. It is after the lapse of a century, in the period of the great persecution prompted by Jezebel, that the prophetic character shows itself for the first time in its true lineaments. “I have been very jealous (*kanno kinnethi*) for the Lord of hosts” cried the wearied prophet as he stood with his head wrapped in his mantle at the cave’s mouth. It was the story of Elijah’s life, and of the strange power that went with his words. Even the astute and daring Jezebel knew that she had found her match in this wild shepherd from the frontier; she and Elijah were the master spirits of Ahab’s kingdom, and the two banded the weak king between them like a ball. And the zeal of the prophet was infectious; it spread to the people at large. It raised up Jehu, the zealot king, to take vengeance on the race of Ahab. It gathered around the prophet the young men who had caught the impulse, and thus formed those “schools of the prophets,” by whom the sacred fire was passed from hand to hand.

But of all Elijah’s words, the most significant are the first recorded for us, “As the Lord liveth, before whom I stand.” There lay the life and root of all genuine zeal, Jewish, Moslem or Christian. It is the sight of the Invisible and Eternal, before which all the magnitudes of time and sense shrivel into nothingness. The true zealot, as Herder said of Spinoza, is *ein Gott-getrunkenener Mensch*, because he has shared in “the blessed vision of God, which is promised to the faithful,” as Spinoza himself calls it.¹

¹ *In visione Dei beatissima, quae fidelibus promittitur.* Some day the great service rendered by Spinoza’s one-sided philosophy, in its counteraction of the other-sided tendencies of the eighteenth century, will obtain recognition at the

Rarely, indeed, is this zeal found in its purity; human mists obscure and refract the divine light; a vulgar self-seeking or a narrowness of comprehension detracts from the calm and lofty nobility of its aims. But when it is seen in its simplicity or possessed in its power, there we meet with the noblest motive that can actuate a human being. All other forces sink into pettiness and insignificance in its presence, for in it more than in any other form of human action or passion, does the infinite and the eternal manifest itself in the forms of time. Nay, in its less elevated forms, it often has worship in the presence even of those who can detect the baser admixture of ignorance, folly or selfishness, because the divine element cannot be wholly obscured or destroyed.

The post-Biblical history of Judaism is chiefly an illustration of the less noble forms of zeal. Even the splendid outburst of national patriotism under the Maccabees is dimmed and obscured by a narrow and illiberal hatred of mankind in general, and an assumption of being the exclusive favorites of God. The party of the Pharisees, which grew out of that great revolt, perpetuated its tendencies; they wore the name zealot (Acts xxii. 3), as a badge of honor, and they regarded zeal as the product of a divine inspiration, and as carrying with it the warrant of whatever acts its possessor might be prompted to commit; while the Sadducees, and still more, the Herodians, represented the old anti-zealous tendency of the Solomonian "scorner." But even within the Pharisaic there was forming a yet more zealous party, who scorned the ordinary Pharisees as luke-warm and compromising. The falsity of their zeal and the presence in it of less noble motives, which are always elements of decay and degeneracy, had no doubt made the Pharasaic party a party of policy and duplicity, who were ready to coöperate with the astute Sadducees on any fitting occasion. This would naturally lead to spasmodic efforts to restore the old standard of zeal, and to the formation of a party within the party, whose moral difference

hands of Christian philosophers. No writer excited so much horror among the Deists as he; none helped so many (*e. g.* Lessing, Herder, Goethe, Schleiermacher, Niebuhr) out of the slough of empirical thinking, and away from the delusion that the universe can become intelligible by analysis, *i. e.*, by ceaseless resolutions of its wholes into their parts. Still we must add that it was better that Locke and the other Deists should get the upper hand in that age, than that Spinoza should. He was an excellent rebel, but he would have been a terrible tyrant.

from the larger body would very much depend upon the purity of their motives. The Canaanites or Zealots seem to have been in no essential respects better than the average Pharisee, and in point of fanatical bitterness and exclusiveness, very much worse. The Pharisees knew how to use them, and excited tumults among the people by their means, without committing themselves to the extreme principles and measures of the lesser faction. But this sort of patronage has at all times been a very dangerous playing with edged tools. It fostered the growth and increased the power of the Zealots, until they became the masters instead of the tools of the cunning respectables. It removed all salutary checks to their fanaticism, and finally it precipitated the nation into a suicidal conflict with the Roman Empire, and set the arms of the people against each other in the very hour when the Gentiles were beleaguering their capital. The siege and capture of Jerusalem, one of the strangest passages in human history, a companion picture to the reign of the Anabaptists in Munster or Robespierre in Paris, closes the story of a nation's destruction, and adds another to the palmary proofs that *Das Weltgeschichte ist das Weltgerichte*, "the world's history is the world's judgment."

The attitude of Christ and the early Church toward Jewish zeal is one of the most characteristic features of their history. So far from putting themselves in the critical posture of the Sadducees, the New Testament writers and their Master are in their way zealots beyond all their contemporaries. Their Master, on at least two occasions, put himself before the Jewish people as a zealot, claiming the exemption due to that class in driving the traders and usurers out of the Temple, and was so understood by his disciples, for they "remembered that it was written, The zeal of Thine House hath eaten me up." And both Christ and His disciples based all true zeal on just the foundation on which that of Elijah had rested, "As the Lord liveth, before whom I stand." It is the living, present apprehension of God that makes the Christian Zealot, as it made the Jewish; and it is the admixture of ignoble, selfish, narrow or confused notions with that apprehension, which degrades and debases that zeal, and in the end destroys it. But on the other hand Christ, by His teaching and His spirit, discloses to us a larger vision of the divine character, and thus surrounds Christian zeal by safeguards

which the Jewish did not possess. While putting all honor upon the past, He does not seek to carry men back to it. When His two disciples would call down fire from heaven, Elijah-like, upon the Samaritan village, His rebuke is, "Ye know not what manner of spirit ye are of;" and while holding up John the Baptist, His forerunner "in the spirit and power of Elijah," as the greatest of the old dispensation, He adds, "the least in the kingdom of heaven is greater than he." In other words, Christ goes beyond the Old Testament, and so identifies the conception of God with those of love, mercy and goodness, that all zeal for God must be zeal for love, mercy and goodness also. He shows us the "jealousy" of Jehovah to be no more than a loving hatred of all that keeps His sinful sons away from His love. And therefore the zeal of the Christian must be a zeal for good works, an enthusiasm of humanity, a universal love for all his brethren, which differs only in degree directly (not inversely, as some take it), with the closeness of his association with them individually.

Of Christ's apostles the less known of the two Simons bears the name *Zelotes* or *Kananites*, which some have explained as indicating that the party of the Zealots had already crystallized into separation from the rest of the Pharisees; but most of modern scholars, observing the loose way in which the word is twice used in the Acts of the Apostles, place the rise of that party at a later date. We incline, however, to the former view, for that a party name has not yet come to be *exclusively* applied to its members, is no proof that the party was not already organized under that name; and it is to be remembered that the destruction of Jerusalem, in which the Zealots had so large a share, took place while many who had heard the preaching of Christ, and had seen Him in the midst of his Apostles, were still living. Had Christ Himself lived to see it, He would only have reached the limit of moderate old age fixed by the Psalmist.

Another of the Apostles, the greatest of all in his influence thus far upon the history of Christianity, repeatedly speaks of himself as a Zealot, and of his acts of zeal performed before his strange and sudden conversion. However changed the direction and the ethical character of Paul's zeal, it was certainly intensified rather than diminished by his becoming an Apostle. Indeed we should single it out from among his great qualities of mind and heart, as the marked characteristic of the man; while we find it does not prevent his pos-

sessing many or all of the qualities which are thought the least consistent with it. As Paley well remarks, Paul was a man of fine business capacities, full of tact, and yet direct and straightforward—a combination of qualities rare in the mere zealot. He is again a man of large intelligence, fully capable of entering into other people's difficulties, and of patiently meeting mistakes and errors by the statement of related truths, instead of hurling mere denunciations, after the mere zealot's fashion. Mr. Arnold very properly singles out these qualities, and these aspects of Paul's teaching, as especially worthy of the consideration of modern Christian zealots, and emphasizes Paul's injunction to possess and exercise "the mildness and sweet reasonableness of Christ." And yet Paul is the type of the Christian zealot, because filled with a zeal so lofty and disinterested and far-seeing, that instead of coming into collision with the finer qualities of human nature, it demanded and promoted them. His attitude towards that Jewish zeal in which he had once shared is, therefore, most instructive. When he uses the word "zeal" without any qualification, it is always in a bad sense, and he repeatedly associates it with the malignant passions of our nature. In one place he distinctly repudiates the zeal of his countrymen as an evil thing, because not associated with that discernment or scrutiny of its motives and nature, which is its necessary safeguard. Yet in his every description of Christian life and its duties, beginning with that of the Apostle towards his converts and of theirs toward him, zeal is either explicitly or implicitly described as a necessary element of Christian virtue. Indeed the *faith*, which in his view of Christian theology is the initial and the central virtue, is in the last analysis a sort of fusion of love and knowledge in the fire of Christian zeal; and not improperly, therefore, has his disciple Apollos, in the Epistle to the Hebrews, claimed the long series of the Old Testament heroes of zeal, as heroes of faith also. And in Paul's description of Christ's purposes he specifies first the redemption of His Church, then its purification, and lastly its zeal for good works.

Not less interesting is the treatment of the same subject by the Apostle who differs most from Paul in representing the Judaizing tendency among the Apostles, and writing exclusively for Jewish Christians. But on this particular point James is fully in unison with Paul. For him the question was a domestic one; as he tells Paul (Acts xxi. 20) the tens of thousands of believing Jews are "all zealots

for the law." Yet for mere zeal he has as little regard as Paul has; in his Epistle he classes it with strife and with murder, and expressly warns his readers against "bitter zeal" as an unchristian frame of mind. To neither of these Apostles was zeal in and of itself a divine thing, or the warrant for acts which did not commend themselves to the enlightened conscience. Each of them emphasizes the necessity for the presence with it of other elements—especially of intelligence and charity, sweetness and light—as the safeguards of its action. But just as little do they adopt the comfortable, sober, common-sense views of the Sadducees, and scout all zeal as an excess or a madness.

The later history of the Christian Church has illustrated all phases of the question, and every sort of attitude toward it. There have been ages and parties of blind zeal, and then in reaction from them ages of Sadducean sobriety, coolness and indifference; and every one-sided tendency has produced its equal reaction, as when the fervor of the Methodist movement burst out of the chill of the eighteenth century. Rarer have been the times and men which united the good of the two in themselves, which loved both the light of the intellect and the warmth of the heart in equal measure. We are still divided—as Mrs. Browning says—between those who believe something and will therefore tolerate nothing, and those who will tolerate everything because they believe nothing. The most successful forms of Christianity in this enlightened age and country are also among the narrowest; and they are the most successful simply because they have been the most zealous, the most full of that infection of zeal which spreads from heart to heart, and leavens a whole community with its influences; and wherever breadth and toleration are found, they nearly always coexist with a growing indifference to the positive side of Christianity, and tend towards eliminating its dogmas from the popular belief. Whether or not the purely Christian conception of zeal be capable of realization in a whole community, as well as in the lives of a few individuals—such as Paul, Augustin, Luther, Leighton, Baxter, and Maurice—remains to be seen. This is certain—this truth has not yet been wedded to fact among us.

But even more striking than anything in the history of Jewish or Christian zeal, is the part it has played in Islam, because its activity

has there been far less modified by the presence of other forces. Mohammed from the first was a zealot in just the Jewish sense, and even in the best Jewish sense of the word. He had seen the invisible and lived; he knew with Elijah that he stood in the presence of a living God. This became the over-mastering truth of life for the timid, illiterate, epileptic camel-driver. It took such hold of him that it made a man of him, endowed him with a courage and an eloquence that would else have been impossible to him. It sustained him during the more than ten years of his prophetic labors in his native city before the Flight to Medina; it spread like an infection from the little group who shared that Flight to the larger multitude who constituted the first armies of Islam. It carried him through temporary defeat and repeated disaster, and back to his native city as its conqueror. It survived him in the Caliphs and their armies, and carried Islam from the Oxus to the Guadalquivir. It crushed out the zealless faiths of a debased oriental Christendom, an Arabic Sabeanism, and a Persian Magianism. It taught men self-respect before the face of man, and profoundest reverence before God. It built up out of the most diverse races, the vastest empire of the world on the basis of a new belief; it still unites one-eighth of the world's population in a vast brotherhood, whose center is Mecca, and of whose community of ideas and purposes the great Christian nations are obliged to take cognizance.

Mohammedanism stands in much closer relation to Judaism than to Christianity. Neither faith was known to the Prophet in its authentic statement, the Old or the New Testament. He learned Judaism from the Hagadic tradition as current among the Jews of Arabia, and Christianity from those who knew only the Apocryphal Gospels. He had already launched upon his mission as a prophet before coming into close contact with either; and his knowledge of Judaism, such as it was, seems to have long preceded his superficial acquaintance with Christianity. The earlier *suras* of the Koran speak little of the former, and hardly or not at all of the latter, but the investigations of Geiger and Emmanuel Deutsch leave no doubt as to his great obligations to the Talmud. Yet it is none the less true that what made Mohammed the power he was to mould the life and change the thoughts of his people, was a conviction and a zeal he had received from no man, which only God would have awakened in his heart. And in the formation of the opinions and doctrines which grew out of his prophetic insight into the great truth of God's unity,

a greater influence was exercised by his hatred of the idolatry he saw around him, than by anything he learned from Jew or Christian. His doctrine grew out of a repugnance and a reaction; and like all doctrines thus originated, it became by its exaggerations a half-truth, which liberated men from one sort of bondage to deliver them over to another. In his detestation of the degraded notions of the divine which set up gods many and lords many, and clothed them in "the weakness of sinful flesh," he proclaimed the unity of God indeed, but of a God so utterly removed from all likeness to man as to be all but incapable of any sympathy with him. In his hatred of Arab theogonies, which gave the gods divine parents and a divine offspring, he stripped the divinity of all relationship and all relation, and thus denied the existence of any divine ground for the ties that bind men together in the unity of humanity. And in contradiction to the idle weakness of the Arab Olympus, he clothed Allah with not omnipotence only, but omnificence. He missed the sight of all the truths that were dimly shadowed in even the worst corruptions of Arab paganism. And his theology is therefore more sternly abstract and his morality less human than even those of Judaism. Had his proclamation possessed only these negative qualities it would have been powerless; but the truth of God's being and authority, into which the Prophet had seen for himself, lay behind all this. It shaped itself into armies, put a stop to speculation and controversy, and shook the political as well as the intellectual thrones of the world.

Mohammed summed up the faith of Islam in the famous utterance, *La Ilah illa Allah. u-Mohammed Resoul Allah*, "There is no God but God, and Mohammed is his Prophet." When Gibbon describes the statement as an indisputable truth followed by a necessary falsehood, he shows as little comprehension of the Prophet's meaning as of his character. One who studied Mohammedanism for years and close at hand tells us that the "full sense is not only to deny absolutely and unreservedly all plurality whether of nature or of person in the Supreme Being, not only to establish the unity of the Unbegotten and the Unbegotten, in all its simple and incommunicable Oneness; but besides this the words in Arabic and among Arabs imply that this one Supreme Being is also the only Agent, the only Force, the only Act existing throughout the Universe, and leave to all things else, matter or spirit, instinct or intelligence, phys-

ical or moral, nothing but pure unconditional passiveness, alike in movement or in quiescence, in action or in capacity. The sole power, the sole motor, movement, energy, and deed is God; the rest is downright inertia, and mere instrumentality, from the highest archangel down to the simplest atom of creation. Hence in this one sentence is summed up . . . the Pantheism of Force or of Act, thus exclusively assigned to God, who absorbs it all, exercises it all, and to whom alone it can be ascribed, whether for preserving or for destroying, for relative evil or for equally relative good. . . . Thus immeasurably and eternally exalted above and dissimilar from all creatures, which lie leveled before Him on one common plane of instrumentality and inertness, God is one in the totality of omnipotent and omnipresent action, which acknowledges no rule, standard or limit, save His own sole and absolute will. He communicates nothing to His creatures, for their seeming power and act ever remain His alone, and in return He receives nothing from them; for whatever they may be, that they are in Him, by Him, and from Him only. And no superiority, no distinction, no preëminence, can be lawfully claimed by one creature over its fellow, in the utter equalization of their exceptional servitude and abasement; all alike are tools of the one solitary Force which employs them to crush or to benefit." One emotion only is He capable of, "one main feeling and source of action, namely, jealousy of them lest they should perchance attribute to themselves something of what is His alone, and thus encroach on His all-engrossing kingdom."²

With this closer view of the theology of Islam before us, it is impossible to acquiesce in the opinion that Mohammed's assumption of the sword after the Flight as a means of propagating his faith, was a surrender of his better and nobler principles. Such departures from the purity of his earlier convictions it is impossible to avoid seeing in his later life; as when the author of the Koran's fierce denunciations of hell-fire against all liars, denied his own responsibility for the capture of the Meccan caravan by Abd Allah during a holy month of general truce. But the military character of Islam is of its very essence. The conception of the divine which it presents is that of a God at war with all who refuse submission to His law, and who has neither confined His claim to obedience to a single people

² Palgrave's *Central Arabia*, I., 365-6.

(as in Judaism), nor declared (as in Christianity) for methods of persuasion, meekness and mercy in the extension of His kingdom. The Caliph at the head of the armies of the faithful is the true representative of Allah in relation to His elect and predestined servants; and when the Caliph passes from the camp to the Seraglio, ceasing to stand in any immediate relation to the true Islamite, the worst side of Mohammedan theology finds its representative also. For only in the prosecution of a war for the extension of Islam does the Moslem find his true place, and sustain his rightful relation both to Allah, and to the Caliph, who is Allah's rightful representative. Zeal of the military type, "the fanaticism of the banner," as Isaac Taylor calls it, is the point of contact and sympathy between Allah and his creatures, and the crescentade, the "war of zeal" (*Jihad fi'-d-din*) is not accidental in Moslem practice; it grows out of the very substance of Islam.

The laws which Mohammed laid down for the life of the faithful were admirably designed to promote the end he had in view; they fully correspond to the principle of his theology. By the permission and sanction of polygamy he prevented the growth of any true family life; by the consequent degradation of woman, as well as by the prohibition of wine and of every sort of innocent amusement, he prevented, as far as possible, the growth of any social life outside the family. And then, as a substitute for these social centers, he calls the faithful together daily in the Mosque, and five times a day he unites them in prayers, brief and terse indeed, but such as continually reminded them of the character of Him whom they were to serve, and the nature of the service. And in the Mosque itself, the worship is that of a military brotherhood, acting at the word of command of the leader or Iman. Nothing was thus left undone to turn life into a single channel, and to create a perpetual and zealous army out of the whole body of believing Moslems.

It is needless to call attention to the exclusively masculine character of Islam, as thus conceived and formulated by its founder. It has no place for woman; it makes no demands upon the powers and capacities most characteristic of her sex. Its code of morals, so far from addressing themselves to her power of affectionate and personal devotion, go no farther than the command of a few external acts. Islam demands of its followers no emotion but one, and that the most unfeminine of all, the zeal of the soldier; and, as

already said, it does so because it conceives of Allah as capable of no other emotion. It therefore gives no scope to woman's peculiar powers of mind and heart; unlike the Christian revelation, it puts no honor upon them. It makes no demand for meekness, tenderness, long suffering and patience; it has no blessing for the poor in spirit. It infuses into men a proud self-respect, which turns a village of Hindoo pariahs into Moslems, proud of their faith and ready to look the haughtiest Brahmin in the face. It is a masculine faith, nothing more. Hence the weight of its oppression upon woman, through all ages of its history. The women of the prophet's own times held the place of equality among men and by their side, which Arab tradition had always accorded to them. Kadajah, Fatimah, Ayesha, are great names in that early history. But with every age woman has sunk from that place, to become the slave, the tool, the plaything of her master, until to-day throughout all Moslem countries we would seek in vain for a single member of the sex possessed of a particle of social influence. It is rare, travelers say, to see women attending the worship of the Mosque even in Persia, and the new Persian religion, Babism, has no more striking difference from Islam than the very high place it assigns to woman. It is not any explicit teaching of the Prophet that has effected this great degradation of the sex; he never said, as is often reported, that women have no souls and need not expect immortality. It is the one-sided masculinity of Islam, a religion of abstract dogmas and external duties only, that has done it. Or to go back to the root of the matter, it is because Moslem theology has taken the old Hebrew conception of Jehovah as "a jealous God" and "a man of war," and has made them (as Judaism did not) the first and the last word of its dogmatic teaching.

Had Islamic zeal suffered no diminution of its force, it would ere now have been sighing for other worlds to conquer, and solving for itself the problem of perpetuating a religion whose chief duty is holy war, after all its accessible enemies have been put under its feet. But happily human nature and human life are so constituted that only the most elevated zeal, that which is utterly free from all earthly admixtures, is capable of immortality. The seeds of corruption and decay are already implanted in any but the noblest, and the measure of its purity is the length of the period of its vigorous existence. That an utter decay fell upon Mohammedanism, and has

been renewed after every revival of it, shows us its inability to meet and answer the wants of our human nature. Life is too broad and complex for the narrow and simple theories of the universe, which for the time seem to carry men away as with a flood. The world is not a barracks nor a camp, and cannot be turned permanently into either. The decay of military zeal under the later Caliphs clothed itself in forms the most orthodox and proper in seeming, but none the less utterly alien to the spirit of Islam. The Koran, for instance, the great text-book of the faithful, began to be studied as a work of literary art, instead of being regarded as a collection of General Orders to the armies of the Faithful; and out of the study grew a great body of Arab literature, as men gradually passed on to the study of other topics connected with the Koran in a secondary or even more remote way. Then, too, their reverence for the Prophet, a sentiment always tolerated and even commanded to the Moslem, began to take shapes which really and greatly interfered with the popular devotion to Allah as the One object of worship, before whom *all* the inhabitants of the earth are as nothingness. Mohammed's tomb, those of his family and of the other great saints and heroes of Islam, became favorite places of worship; then came prayers and offerings for intercession and the like, until the religion which began by repudiating all mediators, was saddled with thousands.

Another change grew out of and accelerated the decay of zeal. Outside the limits of one heretical sect, the existence of a living priesthood, a class of men officially designated as intercessors between the people and God, remained utterly unknown to the Mohammedan world. On the other hand, the civil rulers of Islam proved no less detrimental to the purity of the popular conceptions. Mohammedan government naturally takes the shape of a despotic democracy like that of Diocletian, Napoleon, and Alexander the Second. Nowhere is there such democratic equality as under a strong despot, and Douglas Jerrold has well compared the system to "frogs under a flag-stone." But with the decay of zeal, the political coherence of the Islamitic empire diminished, and the supreme and unquestioned authority of the Caliph no longer reflected the solitary and undivided rule of Allah over the sons of men. In every corner of Africa and Asia, the lieutenants were establishing new and independent dynasties, and the old national boundary lines,

which Islam was supposed to have effaced, reappeared as the deluge subsided. And within each of these new kingdoms the principle of hereditary right was conceded or asserted with reference to every class or dignity of officials. Democratic equality was utterly obliterated, and its disappearance reacted upon the popular mind. For it was to the devout Moslem the sacramental sign of the great truth that with God there is no respect of persons. But the political tendencies inherent in human nature were here also too strong for Islam.

And we shall see that every attempt at reform and the revival of orthodox zeal, if made on the lines indicated by the Koran, has always begun by the abolition of every sort of local hereditary dignity, and by the substitution of officials appointed by the Caliph or Imam who represents the supreme authority of Allah. It is easy to charge these changes to the selfishness of the ruler, or to show how they abolish the only form of constitutional restraint known to Mohammedan government; but it is none the less true that the logic of the creed and that of the situation both demand them. Therefore it is that Mohammedan rule, if at all vigorous, is the most intolerable of despotisms; because it excludes the very possibility of orders and gradations in society, and requires that all shall be simply the subjects of the one will, and shall hold all places and all rights at its good pleasure and apart from hereditary rank and privilege. In an army this is tolerable; the soldier is brought into a personal relation to his general, and submits to the necessity of war. He can, and generally does, feel a true and hearty affection for the man who holds his life at disposal, but who is daily visible to the rank and file, and addresses his words of exhortation and encouragement to them. Therefore it is that war is more tolerable than peace to the true Moslem; and for this reason also the system works grandly while men's spirits are kept at white heat. But a Mohammedan government at peace, and especially when busy at *reforms*, that is, in carrying out its own ideal of rule, and waging war upon all the results of the struggle of human nature against its rigidity, is the most crushing and exhausting of all despotisms.

Apart from these general sources of decay in zeal, and others similar to them, great harm was done to the cause by the schism which rent Islam in two, and which still perpetuates itself. Sonneeism, as Gib-

bon says, commends itself to the impartial critic as Mohammedan orthodoxy, but for other reasons besides those he gives. The Shiayee sect of Persia, and of some small districts outside it, is in truth a revolt against the one-sidedness of Islam itself, and especially against its masculinity. Such a revolt was foreshadowed by the rise and spread of the Sufee mysticism and of monasticism. The first and greatest of the Sufee saints was a woman, an Oriental Madame Guyon named Rabia, who died A. H. 135. Upon the most emotionless and unfeminine of religions, she and her successors engrafted a practical theology in which emotion is everything, and outward observance or distinctive dogma nothing. Although the prophet had laid his express prohibition upon every approach to monastic organization and every sort of voluntary asceticism, myriads of his followers assumed the monastic garb or "put on the wool" (*Suf*, hence *Sufi*), and rivalled the devotees of Christendom and Buddhism in the severity of their self-mortification. And while Mohammed in his reaction from a Pagan anthropomorphism had proclaimed the existence of a great and impassable gulph between Allah and humanity, and had declared *sherk* (or *association*, *i. e.* the giving the creature any share in the attributes or the glory of the Creator) the most deadly of all sins, this new school trod the path of mystical self-denial and absorption in the divine, until in the teachings of Bustamee all distinction between Allah and the devotee disappears, and the Sufee attains deification.

Persia is a congenial soil for mystical growths, and here especially Sufeeism and Dervishism have always flourished. Not that the Shiayee is always or necessarily a mystic, but his creed has a tendency to mysticism, and when he is a zealot, his zeal takes this shape. As is well known, Ali and his house are the prime objects of Persian regard, and while the Sonnee veils his devotion to the Prophet under qualified and theistic phrases, the Shiayee devotion to the Prophet's nephew and vizier hardly stops at anything. Some of the Shiayee sects even regard Ali as a divine emanation or incarnation of Allah, and speak of him as creating Mohammed, and filling him with the prophetic spirit. Incarnations and emanations, the very *nehushtan* of orthodox Moslem theology, abound in the history of the Shiayee sects, one of which, the Carmathians, captured and desecrated the holy city itself, and trampled under foot the things held most sacred by every true believer. The Carmathians are a rare instance of

military zeal among the Shiayees; another is the sect founded by Mohanna in southern Bokhara. As a rule the sensual disciple of Ali prefers less manly ways of reaching his ends, and the dread name of the Assassins still tells us the character of Shiayee warfare.

The Sonnees have their sects also, four of them recognized and well established variations within the limits of orthodoxy, dating from the second century of the Hejira. The most zealous and rigid, and at the same time the freest from every sort of fetich superstition, are the Hanbalee sect, which prevails in Central Arabia, and in some parts of Africa and Syria. Next comes the Maleekie sect, which is affiliated in some degree with the first, and whose doctors are to be met at Damascus and Meccah. The Shafee'-ee sect is less severe and more superstitious than either, but is surpassed in both respects by the Hanafees, to whom the Turks give their adherence. The last three are represented by Muftes, who reside at Meccah. Their differences, beyond the points already specified, are chiefly in matters of slight observance, such as the posture of the hands in prayer. But to the Hanbalees a special historical importance belongs, as from their midst has proceeded the great modern revival of Moslem zeal, an account of which and of the similar movement among the Shiayees will occupy our second paper.

ROBT. ELLIS THOMPSON.

EUROPEAN AND AMERICAN FORESTRY.—III.

(Concluding Paper.)

WE have shown beyond the need of more ample demonstration that our woodland surface is diminishing with far greater rapidity than the material interests of the new century we have entered upon will allow, and the suggestions we have to offer in behalf of a restoration of the forest, though not strictly original, will undoubtedly be accepted when the time for their application shall have reached us.

Most writers who have recently drawn our attention to the subject of the consumption of wood, and waste of this useful material, have referred to fencing in the United States, and shown the needless

demand it makes upon our forests. As the nation swells in numbers, and farms multiply into millions, it will be an utter impossibility to find the means of inclosing them, and various expedients will follow our new situation. Among the earliest reforms in aid of this cause, a general legislative movement restricting the indiscriminate roaming of cattle, and the passage of the salutary law proscribing their freedom, and denying the right of one man to turn out his herds upon his neighbor's domain, will be found imperative; a simple result of order and good government all over the civilized earth. In the absence of timber, one of the earliest resources will be found in hedging, for which purpose the Osage orange, honey locust and japonica are now in most general use. All the agricultural journals are filled with directions for their culture, and we refer to them for further information as to the planting and treatment of these and all other species of thorned shrubbery. Although the hedge, as one of the enjoyable embellishments of the rural picture, is certainly desirable and destined at an early day to come into general favor, yet we believe that well matured wood will remain the approved material for fencing, although new plans of economy will be found requisite in the division and redivision and inclosure of the fields of the farm. Every one hundred acres require from 12,000 to 15,000 rails each, and in looking over a small expanse of country we discover at least two or three millions of rails employed for their protection. All of this wooden material is fast falling to decay; and in contemplating these flourishing and well guarded improvements, we search in vain for the new material that is to replace the perished and crumbled fences. There are no woods in sight, and mountain timber is far off; so that there is no resource for the farmer but to start a new growth of timber that shall come forward and mature in time for a renewal of his inclosures.

A large portion of our farms in our older settlements is entirely bereft of timber, and, as most appropriate for the purpose, chestnut in small lots of from five to ten acres could easily be propagated, and furnish an exhaustless supply of durable wood for the purposes in question. Thus far the propagation of chestnut in rich productive soil would have proved an unprofitable investment, as the market for this and other woods has been well supplied; but when we scan the future of our forests and reflect on what we have just reviewed of their inevitable destiny, we shall be able to realize the com-

ing scarcity and high cost of every species of useful wood, and the need of cultivating chestnut, locust and other rapidly growing trees will become apparent. When the chestnut grows freely, trees of forty years existence will furnish from 1,500 to 2,000 rails to the acre; and though it may require the life-time of the planter to see the labor and care of his tree-nurture rewarded, the recompense is sure, and in all future time it will bring him ample returns.

In the trans-Mississippi region the soft woods, such as cottonwood, white maple and box-elder, are of extremely rapid growth in a soil noted for its virgin fertility, and we have authority for stating that these species of trees will, within twenty years, attain a diameter of from eighteen to twenty-four inches, when they can be made applicable for fuel and fencing. As temporary expedients for posts and fencing in general, the locust in the Eastern States, and the cottonwood in the trans-Mississippi region, can be utilized in twelve to fifteen years after planting. The wood in that short time will naturally not be of sufficient size or of the proper durability, but the mere fact that it can be resorted to at that immature stage, shows how easily certain growths of trees can be substituted for timber that had previously been at hand for the supply of our wants, after having attained the hardy perfection which a century or two of slow induration had imparted to them.

Trees planted in 1851, at Springfield, Ohio, have attained the following measurements in the course of twenty years:¹

European Larch, 10 $\frac{2}{3}$ inches diameter.

Paper Birch, 10 $\frac{1}{2}$ inches diameter.

Red Cedar, 9 $\frac{1}{2}$ inches diameter.

White Elm, 14 $\frac{1}{2}$ inches diameter.

White Pine, 14 $\frac{1}{2}$ inches diameter.

Norway Spruce, 14 inches diameter.

Austrian Pine, 15 inches diameter.

Ailantus, 15 inches diameter.

Burr Oak, 15 inches diameter.

Silver Poplar, 17 $\frac{1}{2}$ inches diameter.

Other trees in more cultivated soil measured:

European Larch, 18 inches.

Cypress, 20 inches.

¹Agricultural Report, 1872.

The supply of railroad sleepers and telegraph poles is a question of as great significance as that of fences. When the vast railroad and telegraph system shall have attained its full dimensions, we may conjecture the amount of durable wood we shall need for the purposes of that huge organization of motive and electric power. The remedy we would here suggest is already in force, and we find it announced that the Atchison, Topeka and Santa Fé Railroad Company have contracted for the planting of a quarter section of trees every ten miles along the line of the road from Atchison to the western line of the State, about 300 miles.² Chestnut and white oak sleepers are in most request by the railroad companies, although they are said to stand the hard service to which they are subject not longer than six to eight years. For telegraph poles no timber is more acceptable than locust or red cedar, woods of such remarkable endurance that they are known to last for three-score years. It is a somewhat rare propensity to forecast the future, and to secure a supply of timber for twenty-five years in advance seldom falls within the scope of our great railroad projects. The market is always supplied with an abundance, and statistical knowledge in regard to the decline of the forest is either unsought or disregarded. Planting the hard timbers, and these alone will answer railroad purposes, will soon come up as a measure of necessity, and when these trees of artificial growth make their appearance, they will undoubtedly be utilized through sheer necessity, long before they have arrived at maturity.

But a more important subject than all this we shall certainly find in the increasing diminution of the white pine. Hitherto this well known timber has been the desirable material used to meet all our architectural wants. The ease with which it can be worked and its durability render it almost indispensable, and its adaptability to other than architectural purposes has scarcely any limits. All statistical information, all knowledge derived from dealers in lumber and men whose abode is in the white pine forest, give us to understand that the consumption of this cherished wood will soon outrun the supply. The time also for laying up a reserve for all the future wants of building and various mechanical appliances is past, and the opportunity we once possessed of doing it cannot be recalled.

²Agricultural Report, 1872.

The white pine, in common with the tulip-tree (*Liriodendron tulipefera*), cottonwood, basswood and other soft woods can be planted and reared, but it cannot be made of much service until grown to maturity, and when this tree is gone, we shall find our refuge in chestnut and the numerous soft woods and the fragile and more evanescent varieties of timber that are now in partial use and only serviceable when combined with white pine. Should the white pine, or hemlock, or spruce, be cultivated for future supplies of the valuable material they afford us, we shall find in nature herself our best instructor as to the chemical elements required for the successful propagation of the pine, spruce and fir. The study of European dendrology will greatly facilitate our researches into the nature of climate and soil with which the *Pinus* and *Abies* genera are fond of associating, as the laws of sylviculture in that hemisphere will, in some respects, be found applicable here. Forest Director Jäger, to whom we have previously referred, gives us a copious analysis of the soil and climate that are indispensable to the life of the firs and hemlocks. He claims for the *Pinus Sylvestris*, the German Kiefer, a deep clay loam with an ample covering of humus; but restricts it to no particular locality, as it will thrive either on the mountains or the plain. The Fichte, on the contrary (*Abies Excelsa* or *Pinus Picea*), demands an extremely thin soil, rich in humus, but most decidedly a humid atmosphere. In Europe it will grow on the slate rock, provided the atmosphere in which it subsists is adequately moist. This remark of Jäger's is corroborated by the striking characteristic of our hemlock (*Abies Canadensis*), a tree found growing everywhere in the latitude of Pennsylvania on the arid and thinly covered slate formations, but generally along streams, whose exhalations of moisture seem essential to its life and beautifully sombre verdure. The substitution of chestnut for white pine is an event in the history of American timber which does not await realization, for it has already begun. This wood grows in most all soils, is a successor of the oak, whenever it makes its spontaneous appearance, and is ready to be hewn for the uses we are now dwelling upon, such as ordinary building and ornamental architecture, in seventy years. In point of utility it will never rival the white pine, but will only serve as a substitute for one of the most cherished of our lost woods.

The inestimable black walnut, which is now rapidly disappearing

from all its native seats, and has been enhanced to an incredible price, can be propagated and brought to early maturity. In applying this expression, we have reference to the great perfection of quality it attains in the comparatively short period of half a century, and we have to remark, as a general thing, the pursuits of dendrology and tree-growing will be governed by more deliberate action and the anticipation of later rewards than the American mind is accustomed to yield to; and as we enter this new field of acquisition and science combined, we shall have to exchange our restless decades for centuries of quiet anticipation. Two centuries are not an unfrequent term among the forest culturists of Europe, and we shall have to adapt the thought to its resulting benefits in contributing our energies to the future welfare of the nation.

Immense numbers of walnut trees that now stand gracing and beautifying many an aged rural homestead owe their origin to the wisdom of the planter, and are, in such situations, rarely of spontaneous growth. The affection for the tree, and the increased estimation that begins to attach itself to it, are rendering it an object of universal culture, and we hope to see an enthusiasm in its behalf spring up throughout the land.

The wise provision of nature in the creation of mixed growths of trees is profoundly discussed by Jäger, who adopts the theory and employs it as his ground-idea, since it has had its confirmation in all past forestal experience, that mixed plantations are essential to the largest yield, and promotive of the salutary existence of forest vegetation. The birch and maple provide a luxuriant supply of leaf to feed, by the abundance of humus it creates, the needle woods that are often found among them. They require a full supply of light to promote their life and growth, which they receive by associating with the firs and pines, which from the fact of being non-producing shade trees, belong to the class of *light-plants*³. These laws of reciprocity explain in the most lucid terms the secret movements in creation, and the various processes of the vegetable world; they beautifully illustrate order and design, and an ever-failing provision for the perpetuation of life in all organic existence. This author also points out how the oak, when standing among its own species, is

³ On the subject of mixed tree plantations the ablest writer quoted by Jäger is Cotta.

disposed to exhaust its soil and impede its own growth; whereas, when associated with the beech or other leaf woods, it reaches greater age and becomes more productive.

Amid the various recent schemes of forest culture, we have seen no reference made to this great law, this kind protection shown by nature in her wonderful arrangements as traced throughout the vegetable world. In the numerous projects thrown out from time to time, we are struck with the ruling idea that seems to prevail, which is to raise the utmost possible quantity on a given space of land. We accordingly recommend to our tree-growers a faithful study of the German writers on dendrology, and advise them not to venture upon vast speculations in silviculture without a previous knowledge of the immutable demands of sylvan vegetable life. Plantations of unmixed growths have no doubt been attempted, and, in some localities, may have succeeded; but in following the illustrations so ingeniously given by Jäger and others on this subject, we cannot but acquiesce in the wisdom of the rule laid down by them.

Four years ago, the Hon. R. J. Haldeman, of Pennsylvania, introduced a bill into the House of Representatives to encourage the planting of trees and the preservation of the woods in the public domain held by the United States. The bill was supported by an able and interesting speech, elucidating the subject by a general outline of European forestry, and the vicissitudes of former centuries. Congress at the time appeared to take but little interest in the matter, and but few results followed this initiatory movement to enact a system of forest protection and restoration.⁴ From the fate of this solitary effort made by a statesman of extended views, it does not seem probable that any effective measures can ever be taken in behalf of the forest that may apply to the States east of the Mississippi; and the cause will probably be assumed by the States themselves, to whom the jurisdiction of the forest, whenever public property can be acquired in this form, should properly belong. In 1866 the State of Kansas enacted a law, allowing every person who planted one or more acres of prairie land within ten years from that time, a bounty of two dollars per acre, the premium to commence three years after the passage of the act, and to be continued for twenty-five years.

⁴ See Bill No. 2197, House of Representatives, April 11, 1872, and speech of Hon. R. J. Haldeman.

And a further bounty was to be allowed for the planting of trees by the road-side at the rate of two dollars per half mile, to be continued on the same terms as the aforesaid bounty. The payment of the bounty was to be made in warrants by the County Treasurer, which were receivable for all county taxes.

A few years ago, the State of California passed an "act to encourage the culture of forest timber, providing for three Commissioners who appoint a State Forester at a salary of \$175 per month. The Forester is to collect, exchange, grow and import seed and seedlings of forest trees and distribute them gratuitously, and is authorized to spend \$3,000 yearly for this purpose. He is also authorized to expend \$3,000 the first year, and \$2,000 annually, in establishing and maintaining nurseries for raising trees and acclimatizing foreign plants and trees, etc."

In regard to State legislation on the subject, we find the good example set by Kansas and California has been followed by more of the new States. "In Minnesota tree planting was commenced along the St. Paul and Pacific Railroad in 1870, for the primary purpose of making a snow break—the trees being set on either side of the track. The experiment has proved a decided success, and the work is prosecuted with vigor. The company has set out over 4,000,000 trees. Twenty millions have been planted on the treeless plains of the State, and Mr. Becker, to encourage private enterprise, opened a farm on the prairies, and is planting on a large scale at his own expense. Many kinds of trees grow very rapidly, often fifty to sixty feet high, and twenty-five to thirty inches in diameter, in from seven to ten years' time." This we learn from *Harper's Magazine*.

"The Massachusetts Society for Promoting Agriculture has offered the following prizes for tree-planting:

"For the best plantation of five acres, \$1,000; for the next best, \$600; for the next best, \$400. The trees are to consist of European larch nearly all over the State, except in three counties, where the Scotch pine, or Corsican pine, is to be planted. The number of trees prescribed is 2,700 per acre. Further prizes are offered for plantations of the American white-ash of \$600 and \$400, the plantations to consist of 5,000 trees to the acre; the prizes to be awarded in 1887."⁵

⁵ According to the rule laid down by practical European forestry of long experience, plantations of various kinds of trees, and particularly the larch, are

"In Eastham, Cape Cod, a thousand acres of land are now covered with thrifty pines from seed sown; land which but for this protection would have been a waste tract of shifting sand. Game has consequently increased, and quail, plover and other birds are reported plentiful. Valuable pine plantations have also been formed in other towns on the Cape, replacing, to some extent, woods which were destroyed in the earlier periods of settlements." So we are told by newspapers of that State.

Another recent writer thus discourses on tree planting: "New Haven owes its beauty and growth largely to the taste, liberality and foresight of James Hillhouse. The Public Grove Association, which he organized in 1799, raised and expended over \$1,500 for planting elms and grading the Green. One of the donors gave five gallons of rum, then apparently as good as legal tender. Next to the location of Yale College, nothing has contributed so much to the growth and enrichment of New Haven as its elms. New Haven virtually receives an annual income from her elms far greater than their entire original cost. The judicious offer of \$200 to be expended in prizes in Great Barrington is likely to lead to the planting of hundreds, if not thousands, of trees in that town. This example is commended to all who would make the Centennial year memorable for tree planting. It would be easy for our men of wealth to start a kindred movement all over the State, and do, each for his own town, somewhat as Hillhouse did for New Haven. As a mere beginning in this direction, and with the hope that others, who can better afford it, will do far more, I hereby offer \$200 to encourage tree planting in Connecticut, to be given under the following conditions, viz: One dollar to any teacher or pupil in our schools, public or private, who shall plant, or cause to be planted, five trees, each not less than nine feet in height, either elm, maple, ash, white oak or walnut, either on the school grounds or along any road or street."

made with much smaller limitations as to the number of trees. The young trees should not be set closer than three feet apart, and the distance between the rows is recommended to be at least eight feet—twenty-four square feet to each young tree; an American acre, therefore, has the capacity of sustaining but 1,760 trees of whatsoever kind, and the proposition of the Massachusetts Agricultural Society seems to have been based on an injudicious calculation in demanding 5,000 trees from an acre of poor, worn-out land!

The Farmers' Club of the American Institute (of New York) presented a memorial to Congress on the Forestry laws, drawn up by Geo. May Powell and others, which embraced the following important points: 1. "To enact laws for the protection and administration of the forests still remaining; to provide proper regulations for the cutting of timber and for the sale of 'stumpage,' so that the forests may be preserved in accordance with the accepted requirements of economic and hydrographic science. 2. The creation of forestry by planting seeds and cuttings, etc. Also, to plant trees on waste mountain regions, where streams have their rise, and in sections where they will (climatically) act as conservators of the rain-fall, by so regulating it as to prevent both excessive droughts and freshets. 3. The creation of a nucleus of a literature of forests by republishing as public documents a few of the best works on forests, which have issued in countries where they have had more centuries than we have had years of experience in scientific tree-culture. 4. Making the subject of tree-culture and economy a standing branch of study in agricultural colleges receiving aid or support from the government. 5. Making tree-planting a condition of receiving grants of public lands to railway and other corporations, and to States and territories for educational and other purposes. 6. The application of the well-known means of tree-culture to the prevention of the encroachments of the ocean on the land. 7. Giving the Hon. the Secretary of the Interior power to employ a practical, educated forester to aid in carrying out such work in these directions as in the wisdom of Congress shall seem best."

The following resolution was adopted:

Resolved, That concurrence in this forest memorial is respectfully suggested to State Legislatures, as, perhaps, worthy of consideration; also the enactment of forest laws for the regulation of this great question within their jurisdiction.

All these movements on the part of States and Agricultural Associations point to the not distant awakening of a common feeling on the subject of forestry; and as soon as the subject becomes a theme of universal thought, it will be followed up by that spirit of enthusiastic enterprise which is the acknowledged characteristic of the American people.

The control of the State over the forest, or any portion of it, and the acquiescence of the individual to any State enactment having

this tendency, and rendering it incumbent on him to surrender the perfect and unlimited freedom to be master over his own grounds—to range through his hereditary or industriously acquired woodland haunts with the humble feeling of having but a limited interest in their possession—all this seems like a vast concession, and entirely incompatible with the American conception of autocracy; and yet there is very little meaning in the term freedom, as we have been taught to believe in it, unless it subserves the ends of good and true government.

We think the plan of issuing premiums is the most feasible one that has yet been suggested, and whether the bounty be offered by the State or corporation, it will lead to equally good results. To apportion our own earnings, or yield up our own fortunes for the endowment of posterity—to forego the enjoyment of a tangible good for the sake of benefits we shall confer on succeeding generations by our own self-sacrifice—is one of the pleasing idealisms that the world, of which we form a part, does not indulge in. Every day we are witnessing the laying of deep foundations; structures of granite on their granite bases; intended to endure throughout unknown centuries of time. But in none of these monuments can we recognize a contribution to futurity in its purest and noblest intents. We rear our greatest works, and make them the subject of our pride and the instruments of personal benefit, with the wish that we may bequeath to our descendants that which has outlived our own wants. The covering of our desert territory, our bald hill-sides, with the perpetual verdure of long-lived oaks; the overshadowing of our parched streams with the leaf and needle-wood tree; the resuscitation of a deep rooted forest throughout our borders for the use of a people whose name and character we cannot forecast; all this seems like some new incentive in our nature, or grade of philanthropic advancement we have not yet reached.⁶

⁶ The low state of national credit in Prussia, about the year 1811, gave rise to the serious question of the transfer and sale of the public forests, which would have taken place but for the strenuous exertions against the measure made by Ludwig Hartig, the technical chief of the forest administration of that kingdom. The doctrines of Adam Smith and the theories of the Scotch school entered largely into the discussions of the Prussian forest question, as the interference of the State in forest production was included in the same category with all mercantile interests; and it is said that free-trade statesmen of the true Adam Smith grit regret, to this day, that the emancipation of all property from the

Whenever timber becomes so scarce that the price shall be enhanced far above present rates, forestry itself will assume an entirely different attitude. The incentive to large gains, the recompense of labor and great returns to capital, will elevate the pursuit to the rank of many other remunerative enterprises. The premium scheme may be regarded as a temporary expedient to excite attention to the subject before the era of actual want arrives. It may also subserve the purposes of the State in encouraging re-forestation along our streams and roadsides. The great gifts of nature belong to the State; and lest individual man may ruthlessly destroy them, and thus deprive himself of their salutary effects, the State should be invested with the right to their full administration.

In the Agricultural Universities and Colleges of California, Kansas, Illinois, Iowa and Massachusetts, instructions of an experimental nature are given in sylviculture; and we presume this branch of knowledge, so indispensable to the American student of agriculture, will soon be added to the academical course of all our State institutions. Sylviculture can never be made a successful pursuit unless aided by some collateral enlightenment on the subject by a full introduction to the physical sciences; and although the idea of instituting a course of preparatory instruction in this country bearing resemblance to the thorough series of studies necessary to fit the European forester for all the requirements of his profession may be immature, still a moderate degree of accomplishment in this direction would prove both practically useful and serve as an intellectual adornment.

As it may not be uninteresting to the American reader to be informed in what a German course of instruction in forestry consists, we furnish an abstract of the Compendium compiled by the Royal Bavarian Chief Forester, Ebermayer.⁷

The student whose future intercourse with the woods will demand a general knowledge of the various branches of instruction enumerated, is ushered into them by directing his attention to a general system of

control of the State was not accomplished when the agitation of the question was active. See *Staats-forst-wirtschafts-lehre*, by August Bernhardt. Leipzig 1873

⁷Die Lehren der Forstwissenschaft von Theodor Ebermayer. München. 1872.

Mathematics—Such as, superficial and cubic measurement; geometrical division of plantations; line measurement; leveling with level board and instrument.

Mensuration—The art of measuring the contents of wood in given divisions of land, by hypsometrical calculation, in order to determine the total contents of large forest districts.

Physics in General—Meteorology, dew, frost, mist, clouds, rain, snow, hail; the electrical and optical phenomena in the atmosphere, auroras, falling stars, meteors, ignis fatuus.

Chemistry in General—The constituents of the soil, and the elements it should embrace; and how to distinguish the varieties of soil; analysis of the substances found in vegetation, and the mode of absorption.

Mineralogy in General—Concise description of minerals and rocky formations composing the earth's surface.

Botany in General—The distinctive qualities of plants; a description of the most important forest trees.

Zoölogy in General—Wild animals and game.

These preliminary studies lead to

Forest Culture—Tree nurture; process of seeding, gathering, selection and preservation of seed; planting and seed beds; cuttings and layers; wood cutting, trimming, pruning; high and low forest land; process of cutting and clearing; usual times for cutting timber, and the limited age of each kind; rearing and cultivating various trees.

Protection of Woodlands—Against man, wild animals, insects, poisonous plants; natural casualties, as cold, heat, wind, snow, water, fire, vapor.

Utilization of the Forest—A description of the various kinds of wood; their weight, heat product, elasticity, tenacity, cleaving and absorbing qualities, texture and durability; liability to open and crack; adaptation of various woods to soil and climate; the diseases of wood, and the various forms in which they attack trees; collecting and assorting trees for market; transportation, and its various modes by man and beast and its own gravitation, and by water; conversion to charcoal; application of the various woods; working and application of the different grades of building timber; individual uses of wood, such as extraction of turpentine, litter, small gleaned wood; forest pasture, turf and quarries; arrangements and plan of the forest.

Surveying and Drafts—Time for the full development of the forest, and reckoning of space allowed for estimated contents of trees when arrived at maturity; table of age by years, indicating when the various timbers should be felled; plans for felling wood; plans for cultivation; plans for roads.

Book-keeping—General examination and review of forest plantations; forestal estimates and valuation of contents.

Forest Organization—Direction, government, finance, department, legal enactments, forest police, game laws; care and distribution of wild game.

As professional forestry in this country will not be called for until the necessity of restoring the forest will popularize the study of silviculture, and reduce it to a system, which will be introduced first into agricultural, and next, perhaps, partially into general education, Ebermayer's complete course will not be needed by the American student. The elementary step into the science is already indicated by the proceedings of our agricultural colleges in experimentally rearing trees, watching their growth, and receiving instruction in botanical laws that have a bearing upon arboreal vegetation, and in witnessing from year to year the progress of nature's own rules. Centuries spent in observation and the accumulation of experience have been the cost of that matured scientific knowledge of dendrology that distinguishes the European savant.

In the passing operations of nature in her arborescent forms he will find how the various species of trees are adapted to soil, latitude, climate and barometrical position, and his close observations will lead him into the application of mineralogy to the subject he has entered upon.

In the exploration of our native forests he should not confine his investigations to the forestal riches of his own State, but he should pursue his researches into States of different latitudes, where new discoveries will be made, and the most striking contrasts will present themselves, when the low and insignificant growths of the arid soil are exchanged for the lofty hemlocks of four hundred years' maturity, standing in their dark humid soil. In this direct appeal to nature, much that he would have to learn from European writers would thus be dispensed with. Here in this country, and in this epoch, the operations of nature, of which we are the cotemporary witnesses, will ever be our surest guide. Not the least pleasing fea-

ture of the new science will be found in tracing out the laws of association and congenialities of trees we have already dwelt upon; their affinity to each other, and the provisions made for them, from their earliest creation, for mutual protection. Here amid our own primeval forests the school for this species of information is ready to receive its disciples, and easy instruction is held out by visible nature as she exercises her invisible laws before us.

We believe that forestry itself will prove not only a useful, but most fascinating study, and where the whole philosophy of nature as displayed in the realms of flora is combined with the practical and professional department of the subject, a large share of American thought and attention will be enlisted in its behalf.

J. H.

NEW BOOKS.

MANUAL OF THE VERTEBRATES OF THE NORTHERN UNITED STATES, including the district east of the Mississippi river, and north of North Carolina and Tennessee, exclusive of Marine Species; by David Starr Jordan, M. S., M. D., Professor of Natural History in N. W. C. University, and in Indiana State Medical College. Chicago, Jansen, McClurg & Co., 1876.

A work like the present one has doubtless long been in the minds of students of the North American vertebrata as a necessity to be supplied at the earliest possible moment. Nothing like proper instruction in this department of Natural Science has been possible to our colleges and other schools, on account of the lack of books of the class to which the present work belongs. We, therefore, hail Prof. Jordan's book as the first of the series of popular works which shall be available for instruction in one of the most important regions of human knowledge.

The author of this book presents it as his first important contribution to Natural History; for although known as an author, he here first offers some original views on questions of classification. But the work is necessarily in great part a compilation, and as such requires a knowledge of an extensive and in some divisions scattered literature. It is evident that the successful accomplishment of such a task requires all the knowledge possessed by the special student, as well as the industry of the compiler.

The qualities of the work are positive, both good and bad. The energy of the author has overcome many obstacles both in the field and closet; and its defects are often due to bad exemplars in our scientific literature, quite as much as to inexperience.

In general it may be said that the author displays an extensive knowledge of the species of North American vertebrata, and a full acquaintance with the literature of the subject, while its defects are in the definitions employed in the classification, and the mode of presentation of the characters of groups above the species. As a compendious catalogue it can be highly recommended, and in some of the divisions the diagnoses of the species are well drawn up; in others, as in some of the birds and mammals, they are too short to serve a useful purpose. But the effort of the author to present contrasts in each case is obvious, and merits praise; for nothing is more difficult to the student than to be told that species No. 1 has a long bill and No. 2 long toes, and then to be expected to point out the difference between them.

The higher divisions adopted in the classification, are those expressive of the latest results of comparative anatomy, and the work is in so far superior to all those which have preceded it in the same field. But the anatomical characters themselves are very lightly touched, or omitted altogether, which is a serious defect. A greater defect is the frequent introduction into the diagnoses of families, of characters which have no such value, but which only belong to lower groups.

When, however, we come to the keys by which the genera are distinguished, the almost universal employment of specific characters instead of generic characters is simply exasperating. Size, color and proportions are constantly employed empirically in definition of the genera, where good structural characters exist, and are generally pointed out in the books and essays consulted by the author. It is however to be here remembered that this is not entirely true of ornithology, where a number of family names are employed by authors of authority which do not represent any definite idea, their characters if existing, not having been yet pointed out. It is far better to disuse such names, since they form no part of a science, and are only stumbling-blocks to the student. Such, for example, are the *Sylvi-colidae*, *Tanagridae*, *Saxicolidae* among birds, and *Etheostomidae*, *Labracidae* and *Centrachidae* among fishes. The presentation of insufficient or erroneous characters is, however, even more disadvantageous, as in the case of the tortoises, where our author has unsuspectingly followed Agassiz, and has accordingly omitted all their real definitions. The author in fact states in more than one place that certain characters (which are the only reliable ones) are "not adapted for his purpose." What would be thought of the botanical hand-book, in which characters of stamens, ovaries and placenta were omitted from the definitions as not adapted for the purpose? Our author's position in this matter explains why he is thrown back on specific characters instead. This is to be observed in cases where some of the true characters are included, as for instance in the *Cyprinidae*. The characters of the pharyngeal teeth which come first, or nearly so, in discrimination of the genera, are subordinated to

points of color and form, which are specific only; the former not visible excepting at certain times of the year.

The evil of this matter is in brief, that where it teaches anything it teaches error. Generally the species characters are not practically available in the endeavor to discover the reason why a species is to besought in such and such a genus. But if, on the other hand, they produce the impression on the mind of the student that they are the true characters of the genus, he or she will have made little progress in zoölogy. But in the case of those who are ambitious to perfect such a system (?) it will give occasion for the creation of an infinitude of names, which will confound the student and use up some valuable lives which may be occupied in endeavoring to understand or catalogue them. That the author has had some trouble of this kind is obvious, especially in the case of the genera of *Pericidae* allied to *Etheostoma*. Here the utter want of characterization by supposed authorities is noticed under the name *Nothonotus*, which as Prof. Jordan remarks, should with *Catonotus* be referred to *Poecilichthys*.

This brings us to the question of nomenclature. Our author has made an effort to inform himself fully in this direction, and has been largely successful. One of the features of the book is the attempt to bring into use the names of Rafinesque. Our opinion as to the propriety of this measure will depend on our ideas as to the carrying out of the law of priority. In the critic's view, names, to have authority, must represent something. Hence all catalogues are useless lumber. If a species be characterized, and the genus not, the species's name only has authority—although the genus's name might be used just as any erroneous generic reference is used, until some one establishes the genus by characterizing it under any name that he sees fit. When the genus is erroneously characterized, no empirical mode of identifying that genus should be allowed, but it should be presumed that the diagnosis is correct, until the author modifies it, or the type specimen from which his diagnosis was taken, can be found and used as evidence. Where it is only a question of probabilities as to what the type specimen of the author was or is, real evidence is wanting, and the name should be, for the time being, disused. This is necessary for the obvious reason that individuals of species may at some time be found which really agree with the description supposed to be erroneous. It is not safe to presume that we have seen all that was under the eye of a previous writer, unless we have seen his types. Some have carried this view so far as to hold that it is only necessary to have specimens in a museum, and distribute duplicates, to create a nomenclature; all of which is impossible, and is fully met by the usual rule that names without diagnoses have no authority.

As regards Rafinesque, he is to be preferred to some modern authors, in that he gave diagnoses for his genera and species; but cannot claim a high position, in that these diagnoses were often

more or less erroneous. It has therefore often been matter of question as to what they refer to. Some authors, especially Prof. Agassiz, have made identifications as best they could, and many of the genera first named in the *Ichthyologia Ohiensis*, owe their existence in literature to Prof. Agassiz's descriptions. These and all other identifications not positively erroneous, should be allowed to stand. As a general rule, where a diagnosis of either species or genus applies equally well to several, the accompanying name should remain for that to which the next succeeding author applied it, no matter what circumstantial evidence may be adduced to show that the object thus named was not under the eye of the original describer; and for this reason, because the erroneous character of the diagnosis will forever render it impossible to be sure as to what that author did really refer to.

Prof. Jordan has generally allowed the identifications by previous authors of Rafinesque's species and genera to remain, but not always. Where he has changed them, he has, in the critic's opinion, rarely improved matters.

In conclusion, it may be said that this work has many merits, but that it will fall short of the general requirement until its keys and generic diagnoses are recast. This may be readily done for a second edition, which will doubtless be called for.

E. D. COPE.

THE WAR OF INDEPENDENCE—1775—1783—THE FRENCH IN AMERICA. Les Français en Amérique, par Leon Chotteau, avec une préface par Edouard Laboulaye. Paris: Charpentier et Cie. 1876. New York: F. W. Christern.

Among our strongest friends to-day are the French; and just as they gave us help and substantial assistance in the days of our early struggles, so to-day they give us that most flattering admiration, an imitation in many particulars of our own institutions. In this spirit such men as Laboulaye and others of his school have paid us the highest honor in seeking to establish in France a government based in part at least on our own example. Then, too, their praises of America are not the less strong because they look on the part borne by them in our struggle for independence, as the necessary prelude to their own revolution. From 1778 to 1783 is a period of French history which does honor to both nations. Humiliated by the peace of 1763, driven from the American continent by England, France waited for an opportunity which it found in the rebellion of the Colonies. It is to describe the part taken by France in the war that M. Chotteau has written his book; and it is the liveliness of his description, the originality of the material that he has gathered together, and the interest of our Centennial year, that gives his work its special value.

The book is defective in form rather than substance,—the author interjects his own slight personal experiences upon a recent visit to this country, into the narrative of an historical period of great dignity. The actual history of the time so familiar to all of us here is largely supplemented by the free use, given to the author by the Marquis of Rochambeau, of the large and valuable collection of original and unpublished papers of the Comte de Rochambeau, the commander of the French forces, and the friend and ally of Washington. It is to be hoped that his descendant will carry out his long-cherished purpose of printing all of these important documents, and that his stay among us as a member of the French Centennial Jury will have given him the opportunity of securing an American as well as a French publisher. Rochambeau is one of the most interesting, and yet least known, of all the representatives of France sent to our shores during the Revolution. Of the earlier and more enthusiastic champions of our independence, Beaumarchais, the representative of the mercantile adventurer who united money-making with love of liberty, and Lafayette, who gave to this country his strength and his manhood with self-sacrificing devotion, are the men best known. Beaumarchais had a hard fight to get his own again from Congress, and it is not clear yet whether he or Congress got the best of a bad bargain. Lafayette found his reward in the devotion and affectionate admiration of his new countrymen, whose faith in his virtue and greatness has long outlasted that of his own countrymen. The list of those who came here to offer their swords in support of the young republic includes men from all countries and of all degrees of excellence and badness; but of many of them little is worth knowing, and less need be said. In great contrast to these adventurers of all types, is the stately figure of the Count de Rochambeau, the representative of France in the glorious and closing scenes of the war. Born in 1725, he came here a man of mature years, experienced in war, and full of wounds and honors won at Namur, Lanfeld, Maestrich, Mahon and Clostercamp. Unlike Lafayette, who brought little but great zeal, and such substantial aid as his own fortune supplied, Rochambeau brought a large and well-equipped force, abundant means, and all the necessary appliances of modern war. His orderly books and official reports supply a full and detailed account of his troops and their respective officers. The details of his movements are given at length. While he was coldly received at Newport, he was warmly welcomed at Philadelphia; in September of 1777, his troops passed in review before the State House, where the members of Congress gratefully saluted each flag as it bowed before the majesty of our independence. With the Count de Grasse as chief of the French fleet, and the Marquis de Saint Simon, and others of the most illustrious names of France, the good people of Philadelphia became fast friends, and not a few of them took refuge here when the horrors of the French Revolution drove them to seek

shelter where they had helped to make a successful revolution, and a republic that was grateful to its allies. The siege of Yorktown is reproduced from the official records kept by Rochambeau and his staff; and the return of his troops to France, with the rewards accorded to the commander and his officers, is fully described. Many of them distinguished themselves in the subsequent wars of their own country. Lauzun, duke of Gontaut Biron, served the Republic in Vendee, Corsica and Savoy, and was rewarded by being sent to the guillotine. Berthier and Dumas achieved greatness under Napoleon. Rochambeau himself escaped the hands of the executioner only by accident, and survived to a good old age on his family estates, where the name is still honored in his grandson, the present representative of the honors conferred on his ancestor by France and by the United States. The visit of such a man at such a time as this has a special value and significance, that could not be better marked than by the official publication of his family archives referred to by Chotteau. The suggestion of Senator Anthony that Congress should purchase all these papers is a timely one, and we trust that our National archives will be enriched by the Rochambeau Papers.

BOOKS RECEIVED.

Declaration of Human Rights as exemplified in the Natural Laws of Marriage, Legitimacy and Life in general, by Geo. J. Ziegler, M. D. Paper, 12mo., pp. 263. Philadelphia: Geo. J. Ziegler, M. D.

A Sketch of the Life, Character and Public Services of Thomas Jefferson, with some account of the aid he rendered in establishing our Independence and Government, by Thomas J. Davis. Cloth, 18mo., \$1.00, pp. 179. Philadelphia: Claxton, Remsen & Haffelfinger.

Darwiniana: Essays and Reviews pertaining to Darwinism, by Asa Gray. Cloth, crown 8vo., pp. 396. New York: D. Appleton & Co. [Porter & Coates.]

The Universal Metric System; prepared especially for candidates for Schools of Science, Engineers and others, by Alfred Colin, M. E. Cloth, 12mo., pp. 49. New York; D. Appleton & Co. [Porter & Coates.]

The Ultimate Generalization: an effort in the Philosophy of Science. Cloth, 12mo., pp. 56. New York: Charles P. Somerby. [Porter & Coates.]

THE
PENN MONTHLY.

OCTOBER, 1876.

THE military and diplomatic prospects of Servia have grown brighter during the month. While she sustained a great defeat before Alexinatz at the beginning of September, and has not driven back the Turks from her territory, she has at least prevented their advance by her successful defence of Alexinatz, and she has greatly strengthened her army by an influx of Slavonic enthusiasts, especially from Russia. The Panslavist pressure upon the Czar's government has proved itself strong enough to secure the removal of all restrictions upon the passage of Russian volunteers singly into Servia; and the Servian army is now a South-Slavonic shaft with a Russian spearhead. Nor does it seem likely that this will be the limit of Russian interference in behalf of Servia. For the first time, she has the conscience of all Europe—including that of all the Englishmen who can afford to keep a conscience—supporting her in her attitude of permanent hostility to the presence of a Tartar Empire in Europe. The Pashas and the Sultan's advisers have therefore listened to diplomatic urgency for a cessation of hostilities for ten days—putting forward, as part of their action, a series of demands as the basis of a permanent peace. These cover indemnity for the past, security for the future in the destruction of some fortresses and the Turkish occupation of others, and the general humiliation of Servia, whose prince must present himself at Constantinople for investiture. The Pashas have evidently learnt one thing from their English counselors, viz: that Europe will not consent to any extension or inten-

sion of Turkish rule on European soil. Hence the absence of any demand for the complete reincorporation of Servia with Turkey.

In these negotiations, as in every previous step of the recent diplomacy, the English government supports Turkey against the united opposition of all the other great powers. Whatever may be the private and friendly remonstrances conveyed to the Porte through Sir Henry Elliott, no nation could give to another a more unqualified public support. All the Turkish demands have received her sanction; and since the united opposition of the other powers seemed to put them out of the question, she has herself proposed a new and hardly less severe schedule of terms for the termination of the struggle, in which the punishment of Servia is reduced to indemnity for the past and lesser guarantees for the future.

OUR country, through Mr. Schuyler, the United States consul-general for Turkey, has rendered a great service to the cause of humanity in bringing before the world a plain, impartial and official report of the atrocities inflicted by the Turks upon the villages of Bulgaria. His report has the more weight inasmuch as he has a European reputation as a diplomatist of the highest character and the most unimpeachable veracity. His report cannot be ignored or pooh-poohed by any statesman in Europe; and the story of Mohammedan atrocities which it contains would be simply incredible did we not know that not a single act he charges, not a butchery nor an outrage he speaks of, is in the least condemned by Mohammedan religious and ethical standards, while they are one and all parts of the traditional policy of the Turks. No public opinion in Constantinople, outside the Christian circles, is at all outraged by these disclosures. The Pashas cannot understand why so much fuss is made over so small a matter. They understand war as having for its legitimate objects all communities suspected of an hostile intention, with no distinction of age or sex; and for its means any act that can inspire terror, inflict disgrace, or in any way conduce to the end in view. As well protest against the discharge of a shell into the Servian camp, as against the wholesale violation of Bulgarian women and girls, the burning of villages, the heaping up hundreds and thousands of corpses, many of them the bodies of little children, in the streets of towns only suspected of hostile intentions. This is what makes the Turkish rule in Europe incurable.

bly bad, and its extermination a permanent duty, incumbent on European Christendom. It is not their violation of their own national standard of morals, in the hot blood of revenge, as the English in India took vengeance for Cawnpore. It is the certainty that they have not, nor ever will have, any moral or religious principle that will stand in the way of their making a Cawnpore of every Christian village in their empire, whenever they see what they think sufficient reason for so doing; and the certainty that they neither look for nor appreciate the condemnation they are now receiving from the whole civilized world, outside the Disraeli ministry and its English admirers.

THE attitude of the English ministry towards the Turkish question, especially in view of the Bulgarian atrocities, admits of no explanation unless it be that hinted by the *Spectator*. It is not as De Tocqueville says, that the English, with all their abstract love of fair play, can never see anything to be unjust if it favors English interests, or just if it opposes them; and therefore do the most Machiavellian things in the most innocent way. For the bulk of the English people seem to have broken with the traditional maxim, "Let us keep Russia out of Constantinople;" they would now be glad to see that or any other power drive the Turks into the Bosphorus. Even Lord John Russell bids Russia God-speed on her crusade, if she will but undertake it. It is rather that England is led by a man whom she put in power in a moment of prejudiced excitement, when she was weary of hearing the pleas of her Aristides for justice, and of whom she cannot at once be rid—a man of fertile and facile intellect, but utterly unable to understand or to appeal to England's better self—a man as devoid of the better English qualities as any Turkish Pasha on the Golden Horn. And this man is one of a race of clannish instincts, keen resentments and long memories, whose brethren have suffered bitter persecution at the hands of these Slavs of the Danube, and who are repaying that persecution by their determined hostility to the Servian cause wherever they have voice or interest. The Viennese press, for instance, which is edited chiefly by Jews, has been characterized beyond all others by its strenuous support of Turkey. In this view of the matter, there is an element of retributive justice in the disasters of Servia.

But Mr. Disraeli cannot, for any long time, succeed in keeping

England in the line of sympathy with his natural and not unjust antipathies. He evidently thought that the English tradition about Constantinople would go a great way in confirming his support of Turkey, and he has only succeeded in forever shattering that tradition. He did not know, because he had no share in, what is best in English character—the moral impulses, the sympathy with the oppressed and the suffering, which are deeper and higher than diplomatic traditions. And we are not sorry to believe that at no distant day England will recall to power the Aristides who represents her better self. Mr. Gladstone's formal withdrawal from party leadership has proved only formal. He has had to speak for the nation once and again since that false step; and he never spoke more forcibly and truly than in his last pamphlet on the Eastern question, in which he reviews the facts presented by Mr. Schuyler's report, and advocates the erection of Bosnia, Herzegovina, but especially Bulgaria, into principalities, with the political status of Servia. The pressure for an early session of Parliament, if it succeeds, as it seems likely to do, will give Mr. Gladstone the opportunity of rendering a great service to humanity.

EVERY great business crisis leaves its mark upon the commerce of the world. That through which we are now passing, coinciding as it does with our vast display of our industrial energies in the Centennial Exhibition, promises to become memorable as marking the point of time at which the United States came forward as one of the great manufacturing centres competing for the supply of the world's demands for manufactures. The Exposition was to deal a death-blow to the Protective System by the comparison of foreign with domestic prices; and no pains have been spared by the English and some other exhibitors to impress upon the minds of the public the contrast between the cost of articles before and after the payment of duties. In some instances they have decidedly overshot the mark, and injured their chance of sales, by adding the full duty to the current English price, and thus asking more for their articles than they ordinarily bring in the New York market. But they have produced no result at all commensurate with their efforts. They have convinced those who were convinced already—the petty minority of Free Traders who produce nothing; while they have confirmed in the *opposita* principle the great multitude of producers,

both masters and men, who are thus informed that their English cousins would gladly take their places as providers for the home market.

On the other hand, the great display of American machinery and the vast assembly of its products have helped to open the eyes of both natives and foreigners to the extent of our manufactures, which now employ more workmen than do those of the British Islands. And a comparison of the qualities of American and foreign wares in several of the most important staples, has suggested the propriety of creating new markets for them by bringing them to the notice of consuming nations, a work in which that veteran Free Trader, Mr. Edward Atkinson, is taking a prominent part. With this view, bales of American paper and cotton have been entrusted to the foreign Commissioners for distribution at home, and they have not only cordially accepted the responsibility, but in some cases have applied for still larger quantities for the purpose. There is no reason why similar efforts should not be made as regards our silks, woolens, metallic and earthen wares. In cotton goods, and in some branches of iron and steel work, we now compete largely with England, even in her home markets; and with a steady persistence in the Protective policy we may yet become what is "quite on the cards," according to our English critics, the greatest of the world's manufacturing centres.

The impression produced upon our English visitors by the Centennial Exhibition is already in part disclosed to us by the letter of Mr. Galton, one of the English judges, to the London *Times*, warning Englishmen that American manufactures have been so developed towards maturity and independence by Protection that England must soon expect to meet their competition in every quarter. Mr. Galton is not alone in this opinion, for we learn from the *Spectator* that the English "papers are full of gloomy vaticinations respecting the manufacturing future of" England. "The alarm is expressed chiefly by returned visitors from the Philadelphia Exhibition, who have been strongly impressed with the undoubted advance made by the United States in all kinds of industrial enterprise."

THE political events of the month do not portend a specially happy Thanksgiving for the Democrats as such, though they will doubtless enjoy that national festival in their other capacity as

fathers, husbands, brothers and sons. The unexpectedly large majorities for the Republicans in Maine and Vermont would seem to show that the Republicans are both united and enthusiastic,—a state of things which was not counted on. The struggle in Indiana, whose result in October will either make or mar the fortunes of Tilden and Hendricks, is uncommonly vigorous, and the most impartial accounts seem to show that the prospects of the Democratic nominee for Governor are not improving. In New York, after the blunder of putting forward a candidate for Governor who absolutely refused the nomination, a ticket has been nominated by Mr. Tilden's special friends, which seems to indicate their sense of the need of Republican votes, as it does not contain the name of a single man who has not been identified with the Republican party during, and in most cases even since, the war.

In Massachusetts the nomination of Charles Francis Adams as the Democratic candidate for Governor carries the last of that eminent family of "breachy cattle" over to their hereditary enemies, the Democrats. The Adamses, from Samuel to John Quincy, jr., are men of fine abilities, and a rare instance of a family retaining its hold on American public life through successive generations. But from the first to the last of them they have been like an old-fashioned blunderbuss, which was far more sure to knock down him who handled it than to hurt his enemy. Mr. Adams will draw many Republican votes; several prominent newspapers, which support Mr. Hayes, have urged their readers to vote for him. But his perfectly proper line of conduct while Minister to England, and especially his not needlessly and impertinently interfering in behalf of sundry Fenians, has alienated many of the baser sort of Democrats. And at the Boston ratification meeting his name was hissed as well as applauded. This sort of opposition may have the effect of rallying to his support a very large body of those who regard his conduct as Minister to England with the gratitude it really deserves, because they know how difficult the task imposed upon him, and with what tact and courage he discharged it.

THE South continues to occupy a prominent place in the discussions of the campaign. It is an embarrassment to both parties, and both are both losing and gaining votes by their attitude towards it, though it is impossible to say how the balance stands. The orders

issued by the Administration to the United States Marshals throughout the South, and the vigorous shaking of the "bloody shirt" by Mr. Wheeler and other Republican orators, are undoing 'all the good effect of Gov. Hayes's pledge on the subject. Conservative people are saying, "We did hope that the war was over, and we begin to suspect that the chief troubles of that section arise from the perpetual interference from Washington." On the other hand, many Northerners are alarmed by the Democratic boast of "a solid South," and are beginning to ask what that means, and whether, in case of Mr. Tilden's election, there would be anything between the negro and the outburst of such passions as were displayed at Hamburg. They fail to see any evidence that that massacre excited any horror in the Democratic leaders and masses, either North or South, or excited any other comment than a muttered "Served them right!" And these people are not all worshipers of the great Reconstruction measures; many of them regard those measures as a great mistake, as an attempt to rebuild society upon the basis of its weakest elements. They neither wonder at the gross corruption of the Republican governments of such States as that party controls, nor at the violent irritation among the whites which takes the shape of violence and outrage in the heat of blood. But, none the less, they feel that, the situation being what it is, the first duty of the government is to protect the lives and persons of its people; and they see no reason to believe that Mr. Tilden would have any clearer outlook Southward than Mr. Disraeli had towards Bulgaria.

A NEW YORK paper has been unearthing Mr. Tilden's income tax return made in 1862, in connection with a more recent affidavit that he received in that year twenty thousand dollars for services to a single railroad. A statement made by a gentleman who was then in Mr. Tilden's office, shows that but a small part of this sum was earned during the year 1862, and that the law called for a return of the year's earnings, not of its receipts; if, therefore, Mr. Tilden reported his earnings in 1862 at something over seven thousand dollars, there is no sufficient reason to doubt his veracity. Some of the Republican papers profess their inability to regard this as a sufficient explanation, and they emphasize the fact that in the subsequent years Mr. Tilden made no report to the Assessor, allowing that officer to fill up the papers at a figure much smaller than his actual income. But we

fail to see any reason for rejecting the explanation offered, or for attaching any weight to these supplementary charges, which lack definiteness and proof.

The general policy of bringing such charges against a political opponent is open to serious question. Probably more people are alienated by the appearance of censorious intrusion and persecution than would be conciliated by the clearest evidence that the candidate assailed had done wrong. The popular demand is not for "faultless monsters," in whose lives nothing evil can be detected. The people are not Pharisees enough to demand of the politicians what they are not themselves. And when they see a public man treated as the Democrats treated Mr. Blaine, and as some papers on each side are now treating the candidates of the other, they are not unlikely to say—each to himself—"If my life were turned inside out after that fashion, what sort of a show would it make?" Hence the vast and rapid growth of Mr. Blaine's popularity when under the fire of an investigating committee. And in all this feeling there is a wholesome instinct, which unconsciously insists on the distinction between act and character. A child who tells a lie is not necessarily a liar, and may be seriously injured by being called one. And the man who interprets his obligations in making out an income tax return by some private rules which he would not care to write out in full on the back of the document, has come by that act to the edge of a moral precipice, but he may never go over it.

GEN. BUTLER'S candidacy for Congress in the Salem district is one of the worst signs of the times; and little as the Democratic member elected two years ago has done to deserve the renomination he has received, his reëlection seems to us the plain duty of the district, unless some better Republican be put forward. Mr. Butler belongs to the most dangerous type of American politicians; for he is a man of some great and popular qualities of mind, a strong man in many directions, but unhappily devoid of moral balance, and cynical in his contempt for merely moral considerations. New England produces such men, by a sort of reaction of vigorous but unbalanced natures from her ethical severity. Her good people are so very good that the bad are frightfully bad just out of spite. But it is of ill omen for her future when a district of her greatest commonwealth stands up in the gate to say of such as Benjamin F. Butler "Behold

the man whom our people desire to honor—who represents us." Of all the Republican disasters of 1874, none spread such satisfaction among the well-meaning of all parties as the defeat of this Republican statesman, and we trust that a repetition of that satisfaction will not be denied them.

THE inauguration of the Johns Hopkins University at Baltimore is the beginning of an experiment which, if successful, will open a new chapter in the history of American education. By advice of President Gilman, the Trustees have decided for the present at least to establish courses for advanced students only, and a considerable number of young men, graduates of other institutions, have been selected as Fellows of the new institution. They are paid five hundred dollars a year, and are expected to pursue some line of original research, under the supervision of some one of the eminent professors who constitute the Faculty. This arrangement, if it succeed, will give the Trustees the material for the creation of a still larger Faculty some years hence, and for the establishment of such courses of a less advanced character as the local demand may call for.

This very decided innovation was probably the only course open to the new institution. To have opened an ordinary university in Baltimore at the present time would have been a great waste of money. No American city of its size is less conscious of its need of the higher education; for in none—not even in Quakerly Philadelphia—are art and literature set so far "below the salt," while Baltimoreans have not even that compensating advantage, the popularity of physical science which characterizes our community. The demand for a Baltimore university must be created, and its creation is one of the largest problems before President Gilman.

The address delivered on the occasion by our distinguished English visitor, Prof. Huxley, was in some points a very characteristic performance. Those who remember and admire his utterances on the subject of the moral element in education, in the London School Board, will be surprised and disappointed at his utter silence as regards everything but purely scientific training. And many will be surprised to learn that the merely scientific theory of science and education logically involves the conclusion that all truth is merely relative, and that there may be worlds in which two straight lines can enclose a space. His advice to the Trustees, to employ for

the present bricklayers only, and not to call in an architect or do any thing to beautify the buildings they erect until everything else is provided for, shows—if it is to be taken literally—that a man may know a great deal about the physiology of man, and very little about the architecture or physiology of a building. Many will say that this is a fair hit at the weakest point in our educational policy; but we think a still weaker is the needless multiplication of institutions of the higher class, often merely to gratify local or personal vanity, when the money thus expended would have done far more good if employed to strengthen the older institutions; either directly, by adding to their general endowment, or indirectly, by establishing good intermediate schools and academies. Phillips Academy, at Andover, is worth more to New England than half a dozen of her weaker colleges.

THE question of the “endowment of research,” partly solved by this new University, is exciting great discussion on both sides of the Atlantic. The complaint is general that much of the finest talent of the time is crippled by the necessity of earning a living by teaching boys, and thus prevented from extending the horizon of human knowledge to anything like the extent which might be fairly anticipated from it. It is proposed to divide the incomes of the English universities between the actual teachers and the “endowed researchers,” and to select the latter by a certain system from among the promising young men of each of these institutions, gradually winnowing out those who fail to realize the promise given by their youth. And in our own city the Academy of Natural Sciences has adopted a plan of reorganization, which if supported by the liberality of our wealthy citizens will create a faculty of able men with very slight routine duties and very ample time for original investigations. Of this plan we must say that while good enough as far as it goes, it differs from all those that have been adopted or proposed in Europe, in separating the physical from the moral and the historical sciences, and endowing the former alone. All the great academies of Europe, beginning with the French Institute, aim at a union to some extent of all the branches of human knowledge—for the French Academy of Sciences is but a branch of the Institute. And the great *prestige* of those academies, to which appeal is sometimes made by the advocates of this plan, is chiefly due to the men

who pursued other lines of investigation than physical science. It is true that the intellectual activity of our own city is chiefly devoted to the exact sciences, but by no means so much so as was the case twenty or thirty years ago. And there is among our people a greater popular interest in the other topics, as might be seen from a comparison of the meetings of the Evangelical Alliance with those of any of our national or international scientific conventions.

The question is also raised in very high quarters as to the general expediency of such endowments. Prof. Andrews, the eminent chemist who was elected President of the British Association at this year's meeting in Glasgow, in his inaugural address "insisted that the endowment of research, as apart from teaching, need not be thought of; since the best teachers had time for research, and the best investigators only gained by teaching." It would certainly be a great injury to the class of professors and teachers to give them to understand that public opinion demands of them nothing new or fresh in their several departments—but only the injection into others of certain quantities of knowledge by the most expeditious methods. No man can ever teach well what he has not in some sort found out for himself. And if our rising generation are to be isolated from personal contact with the original investigators, and delivered over to the hum-drum repeaters of hearsays, until they have completed their ordinary course of study, the chances of perpetuating the sacred succession of the devotees of light and truth will be very slim.

ANTIQUÉ JEWELRY AND ITS REVIVAL.¹

THE new school of jewelry established by us at Rome aims at the perfect imitation of ancient and mediæval works of art in gold and precious stones; each object being so executed as to show, by its style, to what epoch and nation it belongs.

¹ A paper written by Signor Alessandro Castellani at the request of many friends. It embodies the principal facts of a memoir read by him before the Institute of France, in 1860, and the Archæological Institute of London in 1861, and recently at a meeting of the Archæological Branch of the National Science Association, at Buffalo, and before the Pennsylvania Museum and School of Industrial Art. At the disposal of the latter Signor Castellani has kindly placed it, so that its publication may extend in our own country a knowledge of this beautiful art and important industry.

Italy having been both in ancient times and in the middle ages the greatest centre of European civilization, and the home of the arts, we have confined ourselves principally to the reproduction of the jewels made in various periods by its Etruscan, Greek, Roman, or other inhabitants. Therefore, in the present brief memoir of our researches into ancient jewelry, we will begin by making mention of that Italian people which has left us the earliest examples of these forms of art, viz., the Etruscans.

Up to the present time, the researches of the most learned ethnologists have succeeded in lifting only a part of the veil under which the origin of the first inhabitants of Italy is concealed. We only know that their cradle was common with that of other people of the world. This is made manifest by the similarity of their monuments to others remaining in distant parts of the globe. The remains of Cumæ, the tombs of Etruria, the ruins of Nineveh, the temples of India, and the pyramids and other ancient buildings of Egypt, present to the observer so many analogies of form, style, and method of construction, as to lead us to infer the common origin or close intercourse of the various nations which built them.

A better proof, however, of the truth of this remark than large monuments can supply, is to be seen in the very delicate and yet well-preserved works in gold found in recent years in excavating the cemeteries of Etruria and Magna Græcia. These jewels have a great likeness either of form or workmanship to the decorations of the ancient deities of India, to the ornaments discovered at Nineveh by that eminent archæologist, Mr. Layard, and again to those of Egypt disinterred by A. Mariette, and so deservedly admired in 1862 in the Egyptian Court at the International Exhibition of London. Every one, in fact, in our days, admits that the East is the birthplace of the various nations that have occupied Europe. It is not our present object to inquire by what causes and accidents they spread themselves over different parts of the world, but only to point out that the works of jewelry produced by the group of primitive peoples to which the Etruscans belonged are, if not identical, at least similar in type²; that these nations possessed in common the

²The origin of certain types employed by the Phœnicians and the early Etruscans in the decoration of gold ornaments has been the subject of my constant research for many years. Recently, while inspecting the publications of the Geological Survey of the United Kingdom, in the English section—Main

knowledge of some special chemical or mechanical processes unknown to us; and finally, that among all their ancient ornaments that have reached us, the most conspicuous for beauty of form and admirable workmanship are those which the Italian soil has yielded.

Among the most ancient races then of our peninsula are, as we have said, the Etruscans, whose history is involved in the dense obscurity that surrounds the origin of nations. The historian Micali, speaking of them, affirms, "The origin of the Etruscans was very uncertain, even in the time of the ancients" (vol. i., chap. 7). Still their system of religion, of which we have some records, their ornaments, household implements and utensils, in fact all things relating to them which have reached us, "attest that they migrated from the East previously to their establishment in Italy, and give us a striking proof that the cultivated Etruscans for a long time sought after those arts which are means of splendor and power to nations.." (*Ibid.*)

The Greeks, flattering the greatness of Rome, called the primitive Italians barbarians, and asserted that the mythologic heroes Hercules, Evander, and Æneas, had introduced Hellenic civilization into Italy. So that the history and arts of the primitive inhabitants of our peninsula, the Tyrrhenians, Etruscans, Samnites, and Sabines,

Building—of the Centennial Exhibition, I discovered in a case some books on fossils, with illustrations, published by the British Government. (There is also a work in the French section of the Exhibition, showing the source of these forms, called "*Description des Oursin Fossiles de la Suisse, par E. Desor et P. de Loriol.*") The various specimens of Diadema and Pseudo-Diadema, varieties of the "Oursin," or "sea hedge-hog," from the Mediterranean shores, reproduced with the greatest care, revealed to me at last the source from which the early Etruscans and the Phoenicians derived their primitive style of decoration. The bracelet with square compartments, in the Campana collection; the saddle-shaped ear-rings (case No. 5, in my collection of personal ornaments exhibited in Memorial Hall), and many other jewels scattered through the various European museums, present their surface covered with hemispheres, and grains of all sizes distributed in square compartments, and parallel lines so strongly resembling the fossil Diademæ, as to leave no doubt about their origin. I think that my theory (I call it so because I never saw it mentioned before) will apply as well to the decoration of numerous bronze vases, implements and pottery of early periods found in the cemetery of the Certosa, near Bologna, by the learned Count Gozzadini, and to many other examples of metal work discovered in all parts of Etruria.

were consigned to oblivion in order to make the greatness of Rome and of the Latin race more apparent.

Thus, in lapse of time, the earlier inhabitants of Italy, and their traditions, became totally forgotten. Their tombs alone, from time to time discovered and excavated, have retained a faint recollection of them, and offer to the astonished gaze of the modern Italian, vestiges of the genius and customs of his unknown ancestors. From these tombs we have been able to ascertain that in that distant age the arts to which riches give birth, and which aim at the most delicate fashioning of personal ornaments, were practised with exquisite taste and skill; for the examples which remain are inimitable in both these respects.

Next we must briefly refer to the Greek colonists of Southern Italy, who, springing from a race which approached nearer than any other to perfection in all the arts, have also left behind examples of jewelry not less remarkable for taste and beauty than the Etruscan works. Their extensive commerce brought with it a degree of wealth and luxury which the mother-country never enjoyed, and supplied them with an abundance of the precious materials upon which to exercise their wonderful artistic power.

And lastly the great Roman people, though conquerors and legislators rather than artists, learned from the more civilized neighbors whom they subdued, how to admire and practice the tasteful working of gold and precious stones; and their productions, differing widely in style from those of Etruria and Magna Græcia, have furnished us with many beautiful objects for present imitation.

The barbarism in which Europe was involved for many centuries after the fall of the Roman Empire, destroyed the traditions of the arts, and made it difficult to distinguish to which epoch the various utensils and ornaments of ancient workmanship belonged. Still modern researches have enabled us to assert that the goldsmith's art was already in decay in the reign of Augustus. The Etruscans and inhabitants of Magna Græcia attained the highest perfection in the early years of Rome; but with the rise of the imperial power the art of jewelry lost its beauty, as has happened in all times to those arts which flourish in the free life of nations, but languish and die when liberty grows weak or disappears. The excavations of Pompeii have brought to light works of the Greco-Roman period inferior to those found in Etruria and Magna Græcia. And al-

though in the Pompeian ornaments we find sometimes the elegant forms of more remote antiquity, showing the well-known persistence of archaic types, still the workmanship is in every way inferior. From this we deduce that the decay had begun; and that the gold ornaments of imperial Rome, both in design and execution, fell short of those of remoter periods.

When a body perishes, not only one but all the elements of which it is composed are doomed to corruption. Thus the Roman Empire, falling from one stage of weakness to another, caused the decay of the whole fabric of society, and of every branch of the fine arts. Accordingly, from the 3d to the 6th centuries of our era, all works belonging to the art of which we are writing are easily recognized; for it was a time when rings, bracelets, and other ornaments in gold, were made of great weight and very inelegantly; beauty of workmanship being less valued than quantity of material. For this reason comparatively few of these jewels are now to be found, they having been eagerly sought by the barbarians who a hundred times overran and plundered Italy, and a hundred times returned to their forests and mountains laden with spoil.

The early Christians, being chiefly poor men, and taught to despise all external magnificence and show, had neither means nor desire to possess personal ornaments or costly vessels for sacred use. Their altars were adorned with terra-cotta and bronze; the bread of the Eucharistic ceremony, and the reliques of the dead, were enclosed in copper lockets; and the few jewels in gold and silver found in the catacombs of Rome, similar in form to those of the dark ages, are so deficient in art that they can only be compared with the roughest works of the primitive eras. Of this kind are the medallions (*thecæ*), rings, and fibulæ, used by them to distinguish each other in the days of persecution and danger, and on which the various Christian symbols are generally represented in a very inartistic manner.

At Byzantium, the new capital of the Empire, which from being Roman became gradually Greco-Oriental, the arts underwent great changes. Jewelry lost its antique Italo-Greek type, and assumed the widely different characters of the Arab and Oriental schools; in fact, together with the other arts of design, it became Byzantine. Enamels, mosaics, precious stones, pearls, and coarse chasings, all mounted with an exuberant and Asiatic magnificence, constitute the

characteristic traits of the Byzantine school. Still this school preserved, in the general disposition of its ornamentation, a few of the architectural forms of Greece, and thus served well for the transition between ancient and modern art at the period of the Renaissance.

Artists of this school, which represented, though in a semi-barbarous style, the Christian symbols and figures, flying from their country to avoid the persecutions of the Iconoclast emperors, established themselves at Venice and in the Exarchate, and spread there the knowledge of the processes and forms of Byzantine art, which, modified by Italian artists, produced the Italo-Lombard style; and of this, which lasted down to Cimabue, we may yet see a great many examples in the shrines, reliquaries, and sacred furniture of the churches of Northern Italy.³

At the expiration of a thousand years after the birth of Christ, the terror produced by the expectation of the end of the world, founded on a misinterpretation of Scripture prophecies, quite passed away. Then the nations of Europe returned with a new vigor to the ordinary occupations of mankind, and, among other things, to the study and working of those arts which adorn and solace human

³ We ought not to leave unnoticed here the Celtic and Anglo-Saxon works in gold and other metals, of which some beautiful specimens have been exhibited in the "Loan Department" of South Kensington Museum. Among the many remarkable objects (proofs of the wealth and taste of England) temporarily collected there by the learned archaeologists to whom the task was intrusted, we were particularly struck by this northern phase of art.

The large Celtic gold torques, diadems, gorgets, armillæ, mammillary fibulæ, and many other ornaments for various uses found in Ireland, put one in mind of Roman art, but possess a peculiar local character.

Then, on examining the Anglo-Saxon works, one is struck by their similarity to those of Oriental peoples, especially of the Arabs; not only with regard to the design, and the manner of setting the stones, ambers, and millifiori glasses, but, in a remarkable degree, in the process of fabrication.

The use of the chisel and the graver is scarcely perceptible, especially in the oldest examples; but the small particles are carefully affixed to the surface, and soldered on, forming a very beautiful filigree work. This, together with a species of *cloisonné* work with garnets and colored glasses (not enamel), like the jewels of the Lower Empire and of the Lombards, give to these Anglo-Saxon ornaments a beautiful and characteristic appearance. In addition to this they afford evidence of the degree of civilization which the Anglo-Saxons had attained, and of the extent to which they contributed to the preservation and revival of art.

life. Thus the arts again began, we cannot say to flourish, but at least to be cultivated with better prospects.

Jewelry for ecclesiastical uses came first into existence, being fashioned mostly in cloisters, and under the immediate influence of the Church. The processes employed were those of Byzantine art, with the severe forms of ancient architecture, as in the shrines of Cologne and Aix-la-Chapelle, and many other ecclesiastical ornaments of that age. Later, about A. D. 1200, flourished the monk Theophilus, who has left a good treatise on the decorative arts, including the working of the precious metals. By his time the working of jewelry had considerably advanced, and thenceforward it continued more and more to free itself from the roughness acquired during the years of barbarism, until, in the 15th century, a new and better Italian school arose, and began to create those marvels of art which have not been surpassed. At the head of this school were Maso Finiguerra, Caradosso, and Benvenuto Cellini.

It is not certain whether the Italian masters of the art of jewelry of the 15th century had lost, or disregarded, all the traditions of the ancient schools, or whether, guided by their native genius, they labored to create new methods of working in this art, harmonizing it with the forms under which the sister arts were reviving. In confirmation of the latter view (to which we incline), we will relate the following anecdote from the Memoirs of Benvenuto Cellini.

He tells us that one day Pope Paul III. showed him a gold Etruscan necklace of exquisite workmanship, which had just been accidentally discovered in the earth. He carefully examined it, and exclaimed, "Ah! it is better not to imitate these Etruscans, for we should be nothing but their humble servants; let us rather strike out a new path which will at least have the merit of originality."

These masters, at all events, studied and used at their discretion methods totally different from the ancient. They availed themselves of the punch, burin and chisel; of enamels, nielli, cast ornaments and figures, and precious stones. And their best works are those in which these precious materials are combined according to the free and original fancy of the artist, without showing the slightest similarity either to ancient processes or designs.

But, with the decline of painting, sculpture, and architecture in the days of Michael Angelo, jewelry underwent the same fate. In the 17th century it was already in an advanced stage of decay, and

lost every merit, and every reminiscence of good taste, under the fatal domination of the Spaniards and Austrians over Italy.

Subsequently it fell from bad to worse, until the parody of classicism in works of art attempted by the French at the end of the last century; and from that time to the present, it has (with the rarest exceptions) forsaken every artistic character, to become the slave of caprice and fashion, a branch of the merest traffic and speculation.

In the first year of the present century, a few attempts were made at Naples to copy exactly the ancient works in gold. The jeweler Sarno was the first promoter of this revival, which, helped by the advice of the Neapolitan archæologists, and favored by the demand from abroad, prospered for a few years; and it is not easy to give any good reason for its gradual decay and dissolution. Afterwards the artists who composed the school began to restore the gold ornaments found at Pompeii and Herculaneum, and applied their knowledge also to produce forgeries of them. They so wonderfully succeeded in this last reprehensible branch of industry, that Naples became noted for such falsifications. So cleverly were they done, with the use of artificial color, and acids, and gold solutions, that it was nearly impossible for any one not having a long practice in jewelry and a knowledge of archæology to distinguish whether they were truly ancient or not.

In 1814, the elder Signor Castellani, then very young, opened in Rome a studio for the imitation of the jewels of France and England; and it was not long before he succeeded in equaling and surpassing them. In 1826, the field in which he was engaged appearing too small for him, he turned his attention to chemical science, looking for new help, and methods which could advance his art; and in the same year he was able to give a lecture in the Academy of the *Lincei* at Rome on the chemical processes of the coloring of gold, in which he explained the application of electrotype and similar processes to the art of gilding. Several scientific reviews spoke highly of his discoveries, and among them we mention with pleasure the "Revue de Genève," as being published in the country of the learned *De la Rive*, who was afterwards one of the discoverers of the modern galvanoplastic process. In not caring to pursue this invention, the elder Castellani showed how little he valued the mere splendor which dazzles the eyes of too many

people, but does not conceal from the sense of the artist an inferior design and still worse taste.

About that time the earth which had covered for so many centuries the wonders and treasures of Etruria yielded up to us a part of them. All those who saw them wondered at the beautiful jewels found in the ancient cemeteries of that mysterious country. Signor Castellani was the first who conceived the idea of reproducing them with the greatest possible exactness.

The approbation and advice which he received from a few real admirers of ancient art encouraged him to pursue his labors upon antique jewelry. But he derived his chief assistance from the Duke Michelangelo Caetani, who, so to speak, daily instructed him, and whom we consider as our master, and as a most certain and learned guide in the whole art of design. And thus, after years of uninterrupted research, Signor Castellani succeeded in reviving at Rome the Italian and Greek classical jewelry, which, modeled after antique ornaments of the rarest workmanship, received the name of *Italian Archaeological Jewelry*.

When the tomb that now bears the Regolini-Galassi name was discovered, we were invited to inspect the very remarkable works in gold found in it, and which afterwards enriched the Etruscan Museum of the Vatican. Such a discovery was very favourable to our art, because it furnished the means of acquiring a more precise knowledge of the character of early Etruscan jewelry, and greatly facilitated our researches into the methods used by the ancients in working gold. Much benefit was also derived from the later discoveries made at Toscanella by Secondiano Campanari, and at Cære by the Marquis Campana. And throughout all the experiments suggested by these discoveries in which we were constantly engaged, we were assisted (as before stated) by the courtesy and kindness of the Duke Caetani.

All the works of ancient jewelry can be divided into two essentially different kinds: ornaments for use, and ornaments for funeral purposes. The first are massive enough to be worn for years without showing the slightest alteration in shape; while the latter, the funeral ornaments, are of extraordinary lightness: we are astonished at the fineness and delicacy of their workmanship, and are not always able to imitate them. Both kinds of work, when belonging to

the flourishing period of the goldsmith's art, are generally in very pure gold; but are alloyed when belonging to certain types of Eastern importation, or when they present designs referable to the epoch of the decay of the Roman Empire. In all cases, however, the ancient process of working was quite a different one from that used in the jewels made in all Europe at the present time. Modern jewelers' work as compared with ancient is much less artistic and more mechanical. The various parts, such as casting, engraving, enameling, polishing and setting the stones, are now divided among different workmen; and the whole is generally superintended by a dealer whose aim is to make a marketable article and dazzle vulgar eyes, not to produce a real work of art. On the other hand, in ancient gold ornaments, whether of Greek or Italian origin, our admiration for the precious materials employed is always exceeded by that which the excellence of the workmanship calls up. The most consummate skill and the best taste guided the hand of the artist while he was producing "repoussé" figures and ornaments, or was disposing with perfect symmetry the small strings of minute granulated or rope-shaped work, or flowers and "méandres." And so well could he harmonize all these elements, as to allow of his works being exquisitely elaborated, without ever injuring the elegance and severe unity of his first conception.

It appears that the ancient jewelers knew and used chemical and mechanical agents quite unknown to us, for they were able to separate and join pieces of gold hardly perceptible to the naked eye; in which operation our modern jewelers have not yet succeeded. Their processes of melting, soldering and wire-drawing remain equally a problem. So that, when we consider the Greek and Etruscan granulated and filigree works in gold, even leaving aside the elegance of the forms and the skill shown in chasing, we are obliged to confess that the ancients were far superior to us in this art.

Among the natives of Hindostan at the present day we find goldsmiths leading a nomad life, carrying with them their tools, setting up business wherever work is to be found, and sometimes sojourning in the establishment of some rich nabob or rajah, where, with the patience natural to them, they transform, with a small bellows and roughly made tools, gold coins or *rupees*, according to certain ancient national traditions, into granulated and filigree jewels much resembling the antique. And the Indian jeweler no doubt gives us

some idea of what the primitive Etruscan and Greek goldsmiths must have been; who, perhaps with few and imperfect tools, worked freely, led only by good traditions and unerring taste, and who were not merely workmen but thorough artists also.

Having determined to restore as well as possible, and, as we may express it, to renew the ancient school of jewelry, our first step was to search after the methods of fabrication employed in ancient times. We observed that all the jewels, except those intended for funeral ceremonies, instead of owing their raised parts to chiseling or engraving, were formed by separate pieces brought together and placed one upon the other by means of solder, or chemical processes. This it is, in our opinion, that gives them so peculiar and marked a character, derived from their expressing, as it were, the fresh idea and inspiration of the artist, and unattainable by the cold and regular execution of the workman. The very imperfections and omissions, purposely made, give to the workmanship that artistic character altogether wanting in the greater number of modern works, which, owing to a monotonous uniformity produced by punching and casting, have an appearance of triviality, depriving them of all individual character, that charm which so constantly strikes us in the productions of the ancients.

The first problem, then, that presented itself to our attention, was to find the means of soldering together with the utmost neatness and delicacy so many pieces of extraordinary minuteness. Among others, those almost invisible grains of gold, like fine sand, which play so important a part in the ornamentation of antique jewelry, presented nearly insurmountable difficulty. We made innumerable essays, employing all possible chemical agents and the most powerful solvents to compose a proper solder. We consulted the writings of Pliny, Theophilus and Benvenuto Cellini; we studied the works of the Indian jewelers, as well as of the Maltese and Genoese, and neglected no other sources of instruction which tradition could supply; but it was only in a remote corner of the Umbrian Marches, at *St. Angelo in Vado*, a little district hidden in the recesses of the Apennines, far from every centre of civilization, that we found still in use some of the processes employed by the Etruscans. There yet exists, in fact, in this region of Italy, a special school of traditional jewelry somewhat similar—not, indeed, in taste or elegance of design, but at least in method and workmanship—to the ancient

art; and the beautiful peasant girls of these districts, when at their wedding feasts, wear necklaces and long ear-rings called NAVICELLE, much resembling the antique in their workmanship. We procured then from *St. Angelo in Vado* a few workmen to whom we taught the art of imitating Etruscan jewelry. Inheriting the patience of their forefathers, and caring nothing for those mechanical contrivances by which geometrical exactness is attained in modern jewelry; these men succeeded better than all whom we had previously employed in the imitation of that freedom of style which is the peculiar characteristic of the art among the ancients. Among these workmen from *St. Angelo* we mention with pleasure the name of Benedetto Romanini, master of his traditional methods to our first Roman disciples in this art.

The events of 1848 caused a suspension of our labor of research; but as at that time every work of art was made the symbol of patriotic thoughts and love, and as we too had produced and sold a great number bearing the same character, it happened that many of our models, besides those made privately by the workmen residing with us, were spread all over Italy and into other countries.

Afterwards, when the hopes inspired at this period had passed away, and stranger domination was again and more heavily imposed upon our country, some causes, not needful to be particularized here, forbade us to continue our labors. Disastrous years followed, and it was not until 1858 that we were able to resume, with a greater zeal and affection than before, our researches into these ancient forms of national art; striving to repel by this revival of the memories of the past, as by every other means, the degrading doctrine then accepted by Europe with regard to Italy. The Etruscan, Greek, and Roman works in gold then once more became the chief subjects of our study and careful imitation.

When compared together we could observe how wonderful was the fineness of the granulated work of the Etruscan period; how striking, in the Greek, were the elegance, lightness, and symmetry of the forms, joined with a certain freedom of style in the employment of enamels and in modeling the small images of various divinities; and lastly, how in the Roman work a masculine beauty prevailed, revealed in the broader forms and the great solidity of workmanship.

The excavations and discoveries of ancient objects made at

Cumæ, at Ostia, and at Kertch in the Crimea, gave us new subjects to work upon, and led to our recognizing as Greek some works hitherto considered by all antiquarians as of Etruscan origin; while others, which had been thought to belong to the best days of Imperial Rome, were proved to be the work of the Lower Empire, or of distant colonies. In copying the jewels of ancient Rome we had no difficulty; but those of Etruria and Greece required special labor and perseverance. Many attempts were made before the uniform and the granulated work, and the various enamels, were successfully reproduced. It is not long since, while inspecting some ancient Etruscan ornaments in our own collection through a magnifying glass, we were led to make the following important observation, namely, that the places from which the granulated work had been broken off, presented the same appearance as those gold surfaces from which the enamel that once covered them has been torn away. This discovery induced us to try a new process for the production of that granulated work which modern goldsmiths had agreed to consider inimitable. On making the attempt, the results were so far successful as to enable us to say that a problem which for nearly twenty years had engaged our attention, was in great degree solved. Nevertheless, I was not yet satisfied with these results, obtained in the *atelier* of Rome; although mensurately good, they had not as yet reached the degree of perfection that characterizes the antique personal ornaments. I, therefore, set to work to discover other processes. I founded another *fabrique* at Naples, in 1868, where, after long and assiduous labor, I discovered the method of reproducing the granulated work of the Phœnicians and of the Etruscans.

Some specimens of this discovery, or rather re-discovery, were shown by me at the Vienna Exposition of 1873. And being desirous to do what I could towards furthering the Centennial Exposition in Philadelphia, I prepared several new examples of the work to which I applied the *Granaglie* according to my new method. In the Italian Court, in the Main Building, these specimens are on view, and persons may judge for themselves the success of my efforts to obtain this much-desired result.

These works are all made at Naples in the *fabrique* mentioned above.

We were also desirous of arriving at a true conclusion respecting

the question of the use of enamel by the ancients. We will briefly state the result of those investigations. It has been generally believed that the art of enameling on gold was totally unknown to the Egyptians, the Etruscans, and the Greeks. Now, first, as regards Egyptian works, there are very few specimens in which distinct traces of enamel can be seen at all. No positive trace of its use is to be found in those beautiful objects discovered at Thebes by the learned Aug. Mariette in the coffin of Queen Aah-Hoteh. The various ornaments and polychromatic grounds seen in those jewels, instead of being enameled, are formed of a kind of tessellated work of various stones; and the beds from which the stones were derived are, as our friend Mariette assured us, still to be seen in the immediate neighborhood of the tombs. All these pieces of hard and soft stones, cut in various shapes on the wheel one by one with impalpable adamantine spath (emery), and perhaps with other substances unknown to us, were afterwards set, or enclosed, in so many divisions or *cloisons* of pure gold, forming the outlines of the feathers of the sacred birds, and of other religious emblems, all of rude and eminently Egyptian designs. And here it is perhaps not out of season to observe that in these Egyptian works is to be found the origin of the Lombard, Gothic, and Anglo-Saxon tessellated ornaments in precious stones, and, perhaps, that of the *cloisonnés* enamels produced by the Byzantine artists.

Out of all the works in gold then, of Egyptian origin, with which we are acquainted, there are but two examples of the use of enamel, viz.: one in the Campana collection representing a bird with open wings and a human head, and another very similar in the Museum of the Louvre. It is, however, not quite certain whether these two jewels are really of Egyptian workmanship, as is generally believed; and even if they be Egyptian, they must perhaps be referred to that time when Greek art was already ruling over the whole land of the Pharaohs. So that, as respects the Egyptians, the question of the use of enamel should, until more convincing proofs are brought forward, remain for us still doubtful and undecided.

A different conclusion is to be drawn in the case of the Greeks and Etruscans. We could mention here a very long list of enameled jewels of Greece and Italy, all existing in the various cabinets of Europe. At the same time it is to be observed that enamel was used by those ancient artists with the greatest moderation and par-

simony; one could, indeed, think that they were unwilling to cover too much of the beautiful and natural yellow of the pure gold with glassy colored coats; for gold was then extremely rare, while these vitrified coverings were comparatively very common, being already largely used in various ways in the fabrication of vases, cups, beads, and amulets for necklaces. We learn then from the work of the Greeks and Etruscans, not that they were in any way ignorant of the art of enameling, but that they had a certain unwillingness to hide gold with enamel. In fact, the artists who could perfectly control the action of fire in fixing and soldering the smallest grains of gold, who could twist gold wires of excessive fineness, and produce by chemical means so many kinds of opaque and transparent enamels, could also, we may be sure, make use of the latter substance whenever they pleased to cover a surface of gold. And we have in fact so many examples that there is no further room for doubt on the subject.

In all the ancient jewels we have examined, presenting more or less evident traces of enamel, we could always admire the good taste and sobriety with which it was used, whether in the choice of the colors, in almost every case light and delicate, or in the skill with which the harmonious general effect of the jewel was attained. Generally speaking, the enamel is enclosed in certain minute compartments made in torque-shaped fillets, forming beautiful designs. Sometimes, too, it is used to cover the bodies of small birds of mythological signification, and in these instances the shining whites, the greens and the blues, are so very perfect and beautiful as to raise the envy of all modern enamellers except the Hindoos, who are still wonderful proficients in this art.⁴

Among the most remarkable objects in granulated gold of Greek and Etruscan origin, we may mention the magnificent crown in the Louvre Museum, the Milo necklace in the British Museum (copies of both of which may be seen in my case in the Italian Court). Also the trays of superb enameled jewelry; ear-rings with cocks, paroquets, little dogs, etc., etc.; the two necklaces ending in butter-

⁴ It is greatly to be wished that a Commission should be sent to India from this country with the special object of inspecting carefully every traditional process still employed by the native goldsmiths there; and particularly what regards the soldering and enameling of gold. We are sure that our curious discovery of St. Angelo in Vado would be renewed on a much larger scale.

fly clasps—all found at Vulci, and forming part of my collection of antique personal ornament, on view in Memorial Hall, at the Centennial Exhibition.

We also studied the art of making *nielli*, and succeeded in producing some not unsatisfactory specimens of this kind of work.

When the Arab element had invaded all the Roman world, the art of enameling, so dear to the Eastern nations, extended itself also over the Western Empire, and thus arose the famous schools of Venice, Limoges and Florence. The various productions of each are well known. But the learned Jules Labarte, who, in his extensive archæological studies, paid special regard to the history of the art of enameling, both in ancient and mediæval times, called attention, in his important work, to a hitherto unnoticed variety. This was a certain kind of *cloisonné* enamel, set transparently, and often mentioned in the inventories of the Merovingian kings.

M. Labarte said that this kind of enamel had been in those days chiefly used to form the body of certain royal drinking tankards, for which purpose it must have answered admirably, since, in the act of drinking, the transparent polychromatic ornaments, arranged in beautiful, geometric patterns, must have been visible. M. Labarte added that he had not yet succeeded in finding an extant specimen of this sort of enamel; but as a proof that it had once existed, and had been highly valued, he quoted the writings of Benvenuto Cellini, where the Florentine jeweler has related that Francis I. once showed him a cup of this kind, and has stated what was his theory of its fabrication. Modern jewelers having been appealed to by M. Labarte to turn their attention to the discovery of the secret of this forgotten art, we were led to make the attempt; and it is a pleasure to say that we succeeded in making ourselves masters of the method. Several specimens of our production, submitted in 1863 in Paris to the inspection of the above-named eminent archæologist, received his full approval; in them he recognized all the characteristics assigned to the lost Merovingian enamels.

Our attention has also long been turned towards works in mosaic. At the time when we took up the subject the greater number of those who followed the occupation of working in mosaic at Rome were almost unemployed: the few works in which they were engaged were of little importance, being for the most part copies of modern designs without taste or artistic spirit. We therefore ap-

plied mosaics to classical jewelry, imitating, at first, the antique scenic masks, and many Greek and Latin inscriptions; and our designs were very soon copied everywhere. So, going to work instinctively, not knowing whether the ancients ever used mosaic work in their personal ornaments, I had a real pleasure, when, one day examining the collection of antique ornaments in the Naples Museum, I discovered an ear-ring of the best Greek period, ornamented with little bits of colored mosaic; exactly resembling the method employed by myself in the decoration of modern personal ornaments.

Afterwards, the discoveries in the Basilica of St. Alexander, and others in the Catacombs of Rome, excited in us the desire of copying some of the Christian works, which, although rude in design, are stamped with a simplicity that makes them very remarkable. We therefore made it our aim to reproduce in miniature some of the best ancient works in mosaic to be found in the old Basilicas of Rome, and in this endeavor we were greatly assisted by the learned Count Oülsoufieff, so celebrated for his knowledge of Greco-Oriental art. By working the mosaics into compartments of gold, disposed according to the designs, all the rich effects peculiar to this branch of art were secured. And while thus occupied we were always under the able direction of the Duke Caetani, for the lamented death of Count Oülsoufieff did not permit him to witness the results obtained through his suggestion, or to see how great a benefit was thence brought to the Roman artists in mosaic; who, as before stated, had been previously reduced to copy, for a miserable recompense, the paintings on modern porcelain.

Thus, from the examination and careful study of the reliques of the ancient inhabitants of Italy, we have at length been able to revive, both in design and workmanship, the best types of jewels according to the successive phases of the goldsmith's art in our country. Beginning with the most archaic Etruscan work, we have succeeded, after long labor, in restoring the Italo-Greek, the purely Greek, the Roman of the best period, and of the Lower Empire.

From these we have passed on to the imitation of works of Christian and Byzantine origin. And the success met with in the last-mentioned departments of art has induced us to attempt also the restoration of the jewels of the Italian Revival; of which period we have faithfully copied the works of the best artists, and principally

those of Benvenuto Cellini. There are, however, comparatively few surviving jewels of this age; the great value of the precious stones with which they were set having doomed the majority of them to destruction. We might, therefore, have been at a loss for variety of models, had not the painters of those times represented all personal ornaments with such a perfect exactness as to enable us to reproduce them accurately in all respects.

With the Italian Revival our labors have ended; since that period there has not been any new and remarkable school of jewelry.

As ardent followers of art, and enemies of all privilege, we do not think that our labor for the cultivation of a purer taste in jewelry by the revival of ancient forms will be lost; and remembering the beautiful adaptation long since made of the philosopher's words,

ΛΑΜΠΑΔΙΑ·ΕΧΟΝΤΕΣ·ΔΙΑΔΩΣΟΥΣΙΝ·ΑΛΛΗΛΟΙΣ,⁵

we do not reserve everything for ourselves, being fully satisfied in the thought that others will follow us, and progressing in the road we have chosen, will help to recall the attention and admiration of the modern world towards worthy objects.

ALESSANDRO CASTELLANI.

CONCERNING ZEAL. II.

SINCE the Crimean war brought Turkey under a sort of European protectorate, the subject of "Turkish Reforms" has been a standing topic with the European press, and we have witnessed fierce disputes between eminent journalists as to the good faith of the Porte in carrying out those "reforms," meaning thereby the establishment of unsectarian public schools, the admission of Christians to equal civil rights with the Mohammedans, the adoption of civilized methods of assessing and expending taxation, and the like. To call such innovations upon Moslem usage "reforms" argues a strange oblivion of the very meaning of the word, or else a strange ignorance of the ruling ideas of Islam. To reform an institution or a system of government means to bring it into a closer

⁵"They who hold the lamps (of knowledge) will hand them on to others."—
PLATO I. DE REP.

conformity with its own normative idea, and to do away with the violations of its principle which have carried it away from that idea. The Protestant Reformation, for instance, is called such by those who adhere to it, because they regard it as a bringing the Church of Christ back to the simplicity of primitive Christianity. Not, indeed, that they are necessarily committed to an unqualified restoration of the methods and practices of the Apostolic Church; but that they believe that the Reformers recalled into living energy the principles in which those methods were rooted, and out of which new methods, more suited to a later age, would grow as naturally. But to attempt the reconstruction of an army on Quakerly principles would be no reformation of that army, however great its corruption and degradation before that attempt. It would be the introduction of principles utterly alien to its very normative idea—of elements whose very presence would necessitate the corruption and destruction of the institution.

And the reforms we speak of are far more closely analogous to a Quakerly re-organization of an army engaged in active service, than to any of the political or religious reforms known to Christian and civilized societies. The evils to be abolished are not excrescences on the surface of Mussulman society; they are vital parts of its system; and every genuine attempt at Mohammedan reform, every true effort to bring back Mohammedan society to the ideal of the prophet and the early caliphs, just in so far as it has been successful, has intensified instead of removing these evils. For to measure a Mohammedan state by the standard of our political ideas is utterly futile. With us the state is an institution whose chief end is the discharge of indifferent justice between man and man; but we might as well apply the measure of that conception to the congregation *de Fide propaganda* as to the Sublime Porte.

The two great Mohammedan revivals, which illustrate this truth, the Wahabee and the Murid movements, are both of comparatively recent origin; for it was somewhere about 1760 that Sa'ood of Derey'eeayah became the armed apostle of the Wahabee creed, and it was exactly seventy years later that Kazi Moolah made his incursion, at the head of a Murid army, into the Khanate of Avaria. The history of both, therefore, is well known to us, as told by recent and well-informed travelers and historians.

The crescent of mountain and highland in the east of Central

Arabia, which is the home of Wahabecism, has been but recently disclosed to us as a district of great natural wealth and dense population. Geographic imagination used to class this region along with the Sahara, and to confound the people of its unknown cities with the wild and illiterate tribes of nomad Bedaweens. Separated from the rest of the peninsula on nearly every side by pathless and waterless deserts, and still further isolated from our knowledge in recent years by the sectarian jealousy of the people and their rulers, it was to Europeans an unknown land, and therefore a greatly misrepresented land. Although Mr. Palgrave was not the first of its European visitors, yet his account of it was the first that commanded attention, and thus extended our geographical consciousness in this direction.

Yet the district was not unknown in the earlier history of Islam. It was here that the rival prophet, Moseylemah, disputed the pretensions of Mohammed to his place as the sole revealer of the divine will, until his party was annihilated by the sword of Khaleed, in the battle of Rowdah, and himself slain. But his influence still lives, for his witty burlesques of the Koran still live on the lips of even devout Wahabees, who never name him without adding the epithet, "the Liar," first affixed to him by Mohammed. That influence was more practical and potent in the great Carmathian revolt of the third century, A. H., when the whole of Eastern Arabia, from the mountains to the sea, was on fire with a strange, anti-Moslem fanaticism. The Carmathians seem to have been a branch of the Ismailiyeh, a Shiyae sect, who carried their heresy so far as to deify Ali, and exalt him above the prophet. But the affiliation is uncertain; we only know, for certain, of the Carmathians; that they, like Moseylemah, repudiated Mohammedan fatalism, and hated Mohammedan orthodoxy with a bitter hatred. Not only did they carry their arms as far north as Aleppo and Bagdad, decisively defeating the Caliph's armies and burning their prisoners alive; they captured the holy city, defiled the Kaaba, filled the sacred well with Moslem corpses, and put a stop to the pilgrimages commanded by the Koran. And although, after a century of bloodshed, Carmathianism was defeated and driven into the provinces on the shores of the Persian Gulf, it has never been completely exterminated as a popular form of disbelief in Eastern Arabia.

It was in such an unlikely region as this that the first great revival of the Mohammedan faith and discipline originated. Mohammed

Ebn Abd-el-Wahab was a native of these Arabian highlands, whose occupation as a traveling merchant brought him, about the middle of last century, to Damascus, where he heard the doctors of the Hanbelee sect expound the rigid tradition of Islam in contrast to the superstitions and laxities of Turk and Persian, Fakeer and Darveesh. With the temperament of a zealot, he combined business talents of no ordinary sort. He took to heart the lessons of his Damascene masters, and went on to draw practical inferences which they were careful to avoid; for, if their version of the Prophet's teaching were the true one, was not Islam one huge plague spot, in its utter apostasy from the truth? If *sherk* be the deadliest of all sins—the dividing line which separates the infidel, whose doom is endless hell, from the believer, who may expect heaven sooner or later—were not the whole mass of professed Moslems daily earning the former doom by their very acts of devoutness? Especially in his native district, with all the nominal and outward adherence of its people to the strictest (Hanbelee) sect of Islam, one heard and saw on every street the signs of popular apostasy—the evidence that its people, instead of calling on Allah, and trusting in Allah alone, had practically come to exalt the great saints of Islam into the rank of mediators between God and His creatures. The sacred practices, the five daily prayers and the like, were grossly neglected; a superstitious regard for amulets, omens and lucky days, took the place of a clear intelligence of the first principles of Islam. El Wahab was forced to renounce the whole Islamitic world and its deeds, and, entering into the thought of the Prophet, to recal the true Islam out of its cerecloths. What had been recognized as the true faith and discipline in the time of the Prophet and his companions, he felt called to restore, to the exclusion of all later additions and corruptions. "Later doctrines and schools," says Mr. Palgrave, "introducing now free will, now merit, now hierarchial institutions and mutual dependence of man on man, now devising intercessors and mediators, living or dead, selecting holy places, honoring saints and tombs, framing ascetic brotherhoods and Darveesh associations, were by the Wahabee recognized henceforth in their true light, from his point of view, as innovations, corruptions, and distortions of the great and simple vision of one solitary Autocrat over one even mass of undistinguished and indistinguishable slaves." Nor could he avoid the literalism and anachronism of attempting an unqualified

restoration of the past; the Christian distinction between methods and principles, which reconciles progress with permanence, has no significance for Islam, in which methods and principles are indistinguishable. "Islam," says Mr. Palgrave, "is in its essence stationary, and was framed thus to remain. Sterile like its God, lifeless like its first Principle, and supreme Original in all that constitutes true life, it justly repudiates all change, all advance, all development. Whatever savors of vitality is by that alone convicted of heresy and defection."

Returning to his native district after a six years residence at Damascus, the Wahabee took up his residence in Eyanah, its most important city, but for a time made no appearance as a teacher. When at last he came forward as such, such a commotion was excited that the Lord of Kateef, to whom the matter was reported, ordered his vassel, the governor of Eyanah, to expel the Wahabee. Thrust out from the city, he fled to another, and laid before Saood, the Lord of Dereeyah, the principles of his reformation, with the offer to recognize him as its civil and military chief. The offer was accepted, and from this time the house of Saood stand forward as the champions of Wahabeeism, while the Wahabee and his descendants stand by his side as his spiritual counselors. Down to our own times this relation has undergone no alteration.

That Wahabeeism has not played the magnificent, all-victorious *rôle* of primitive Islam, was to be expected. Partly this is owing to its character as a revival. It lacks originality. Islam was a new and untried faith, with the most magnificent possibilities before it. Its weak points were still unknown. What it might effect for the world could only be wildly conjectured. But, after twelve centuries of Mohammedan history, even the Moslem is disenchanted of many delusions. Its theocratic theory of the world has been found too narrow. That it contains no inexpugnable safeguards for political and religious unity, and for just government, has become but too palpable. Even when the dark side of the picture is kept carefully out of the devout Moslem's consciousness, he cannot but have seen and known enough to dampen his ardor,—to make him feel that the vast sacrifices demanded of him will accomplish no result commensurate with them. And it must also be borne in mind that the Wahabee had to deal with a society much less simple and unsophisticated than were those Arab tribes to whom Mohammed presented

himself as the prophet of God. Even in the remotest corners of Islam, life has grown more complex, and the subjects of human interest more numerous, than they were in the century of the Hejira. The career that opened to the Arabs of Mohammed's day was a release from the monotony of lives devoid of any interest but the pettiest; but the same career presented to the Arabs of our days is a descent to an intolerable monotony of interest, a wiping of all remaining color out of life. For the world moves onward, and to put back the hand of the great timepiece is forever impossible.

The wonder is not that Wahabeeism did no more, but that it has done so much. Look first at its direct and visible achievements. It permeated a half idolatrous and wholly indifferent people with a religious zeal which made them irresistible soldiers; it made the lord of a solitary Arab fortress the master of all Arabia, from the frontier of Syria to the three seas. Saood himself subdued the interior tribes and provinces; his eldest son, Abdul-Aziz, succeeded him about 1800, and after conquering those on the Persian Gulf, fell under the dagger of a Persian assassin while at prayer in the mosque. Abd-Allah, the second son, carried his arms into Persia, where he sacked the tomb of Hoseyn, the son of Ali, one of the great Shiyace sanctuaries, and then completed the conquest of Arabia by subduing Mecca and Medinah. He made a clean sweep of all the gifts and offerings with which Moslem devotion had adorned the Caabah, the holy cities and the tombs of the prophets and the early caliphs. He continually interrupted the pilgrimage of all but Wahabee *howadjis*. His reign marks high water in the history of Wahabee zeal and success. A solitary revolt, in the interior, against his rule, he punished by the utter massacre of the male inhabitants of the place; but as he rode through its blood-stained ruins, an Arab Rizpah confronted him. "Abd-Allah!" she cried, "pronounce the name of God." "O, God!" was his answer. "O, God!" she continued, "if Abd-Allah has done well in what he has here done, reward him with good; but if it be injustice and cruelty, requite him accordingly." He rode away in silence; and a few years later his forces were routed in a great battle fought in his native mountains with the army of Ibrahim Basha of Egypt, and he himself became a prisoner at the capture of his capital, the city that had grown up around his father's castle.

The Egyptian invasion of Arabia, in execution of commands

received from the Porte, was conducted with masterly skill by the ablest of Egyptian rulers, then the heir apparent of the government to which he succeeded in 1818. Ibrahim Basha "rolled up the country like a carpet" as he advanced. All the irreconcilables he drove before him into the interior "to swell the armies of the faithful," he said, *i. e.*, to spread terror and consume the resources of the country. The rest he conciliated by good treatment, and by strict payment for everything supplied to his army. When at last, after penetrating the very heart of Nejed, he encountered the army of Abd-Allah at Koreyn, the struggle between military discipline on the one side, and religious fanaticism on the other, was of the fiercest; and only on the afternoon of the second day's fight, the field artillery of the Egyptian prevailed. As a consequence, not only the capital and the sovereign, but all the provinces of the Wahabee empire, fell under his power, and he knew how to keep what he had won. His massacre of five hundred Wahabee doctors was his only act of severity, and he labored to promote the best interests of the people.

But the fruits of the best Oriental government vanish as power passes from men of the first order to others of less intellect; and the Egyptians who took Ibrahim's place, when he left the country, soon succeeded in uniting all classes of the people of Nejed in detestation of their domination. Abd-Allah had been put to death on his arrival at Constantinople, but his son Turkee had escaped from the country, and now returned to find the whole land in a flame, and to be welcomed as Imam and Sultan. The house of Saood was too firmly entrenched to be dispossessed; and from this time its representatives, either as independent princes, or as for a time the nominees of Egypt, have ruled Nejed, and extended their power to the shores of the Persian Gulf. The Wahabee empire is to-day an established fact, under the sovereignty of a second Abd-Allah, and it is with every year extending and consolidating its power in central and eastern Arabia, in complete independence of the Egyptian Basha and his suzerain at Constantinople. Its methods of government are, of course, those indicated by its theology. The Imam or Sultan is a despot with no limit to his power; and everything that can be supposed to indicate any inequality among his subjects is carefully and systematically extirpated from the country. For instance, some of the provinces were subject to hereditary chiefs,

who had ruled them for centuries past, and possessed the affections and confidence of their people. They had exerted all their influence in favor of the house of Saood, and had risked their lives and persons by coming forward as leaders in the great revolt against the Egyptians. But when once the Wahabee Sultan was well in the saddle, he set himself to reform this state of things, by reducing these men to the common level and depriving them of their hereditary power, removing them from their provinces on pretext of needing their services elsewhere.

The influence of this type of Moslem zeal upon the life of the communities in which it prevails is sufficiently curious. Of course, there is everywhere, especially since the Egyptian invasion, a large amount of secret dissent and opposition, which, in the provinces on the sea coast, the old home of the Carmathians, are all but universal. But in Nejed itself, especially in its capital Riadh, the great body of the people seem to be permeated by a religious enthusiasm which is at once narrow, fierce and intolerant, and which very fairly reproduces the primitive Islam of the days of the Prophet. Not only are foreigners most rigidly excluded from the country, but also everything that savors of foreign ways and influences. There prevails a Mohammedan Puritanism, corresponding somewhat to the fanciful pictures of the English Commonwealth, originally drawn for us by men who kept the Channel between themselves and Cromwell, and now gravely reproduced as history by our Humes, Disraelis and their like. The use of ornament, such as gold or silk, in dress, is strictly forbidden, but permitted on arms. The use of musical instruments, singing, the plays and games of children in the street, conversation or strolling or having a light in a house after the last hour of prayer, are punished with celerity. Smoking tobacco—"drinking the shameful"—is classed along with *sherk* as a sin beyond forgiveness. Daily attendance at the mosque at the five daily prayers is rigidly enforced. All ascriptions of honor to a human being are forbidden as blasphemy, and conversation is plentifully interlarded with pious phrases, ascriptions of glory to Allah and the like, which nauseate all but the zealots themselves. The tone of general morality is not high as regards honesty, mercy and purity; but as to such trifles "God is merciful!" The Wahabee believes with the Prophet that all the good things of this world are for the enjoyment and delight of the faithful; for

any sort of asceticism or self-denial beyond that demanded of the soldier, he has no inclination, and is under no obligation. His moral and religious ideals leave him a large margin for sensuality and covetousness.

On the other hand, he has much of the ideal Puritan's superiority to petty prejudices. For omens, amulets, charms, incantations, and all the varied tissue of Oriental superstitions, he has the most profound contempt—a contempt which authenticates his belief in the one Sovereign Will. And even in the minor matters of religious observance, he has a freedom of movement not possessed by other Moslems. He lays far less stress upon ceremonial purification; he is far less careful to preserve a rigid conventional propriety of demeanor, than other Hanbeels. The leader (*imam*) of the day's devotions at the mosque, for instance, will smoothe his beard or arrange his dress in the very midst of the public devotions, while the Moslem Mrs. Grundy of other countries demands that his hands remain fixed in some conventional posture.

That Wahabee zeal has been undergoing a decay since their conquest by the Egyptians, seems to be undeniable. Such zeal of necessity suffers from such defeats; as in the days of the Omniade Caliphs, the simple theocratic theory of the universe becomes less credible to men in the presence of disasters to the cause regarded as divine. While Christianity proclaims its own expectation of such defeats, and declares that its power will spread not only in spite of them, but by means of them—that the grain of wheat must fall into the ground and die, or else it abideth alone—Islam, like Paganism, and because of its equally superficial apprehension of the laws of spiritual order, suffers in its *prestige* from every blow struck at its temporal prosperity. The ground lost by the invasion of Nejed by Ibrahim the Wechabite, though seemingly regained, can never be entirely so. The certainty that the Wahabee's cause is absolutely and simply Allah's cause, and that His Omnipotence and Omnificence are at work for its success, is now open to question. And when the revival of national and sectarian zeal expelled the Egyptians from the country, it was therefore impossible to root out all the bad seed they had sown. "Drinking the shameful," if no longer an open practice, is widespread as a secret vice; and the secret skepticism which it indicates is equally common. To restore the old standard of Wahabee practice, there was instituted some twenty

years ago an order of zealots (*Meddey'yeeyah*, men of zeal, "Zelators," Mr. Palgrave calls them), which was designed to root out everything that did not conform to the Koran and its Wahabee interpretation, and its members were authorized to fine and fusticate at their own discretion. The king's brother, a man of fifty, was beaten by them at the door of the royal palace for smoking; his prime minister was punished so severely that he died next day. Limbs were broken and backs bruised, and the streets of the city were strewn with torn silks and laces. But as regards the outlying provinces, these measures failed; the blows of the zealots were returned and their persons maltreated, and the attempt to enforce more than a decent semblance of orthodoxy was given up. But even in Nejed these measures have only cleansed the outside of society—"purified its hide," as their phrase goes. They are themselves a confession of a measure of failure; for in the days of Saood, as in those of the Prophet, such mechanical means to excite and preserve zeal were superfluous.

But the influence of Wahabeeism has not been confined to Arabia; it has permeated, and is still permeating, the remotest corners of Islam. A few fierce controversialists still recall the old days of bitterness, when, in every wayside mosque from Morocco to the frontiers of China, the wail went up for the capture of Mecca by Abd-Allah, the desecration of the Prophet's tomb, and the interruptions of the sacred duty of pilgrimage. To others, Wahabeeism is hateful for its rejection of those natural but unorthodox practices by which Islam's stern and unnatural theology has been made more endurable. But to the great mass of Sonnee Moslems the Wahabee creed makes a most powerful appeal. They cannot ignore the fact that the Wahabee aims at the true reform of Islam—the restoration of the faith as the Prophet proclaimed it. They can only be easy in their repudiation of Wahabeeism by approximating towards Wahabeeism in their practice. Hence the great revival of religious and propagandist zeal which in our days characterizes the Moslem world. Hence, as Mr. Palgrave says, the rapid erection of mosques and colleges, the numerous conversions of irreligious Christians, the steady transformation of non-sectarian into Mohammedan schools, and the spread of total abstinence from wine and spirituous liquors. These are the symptoms of a great under-current which is agitating the whole mass of Moslems, and which must be taken into account in

considering their relation to the future of eastern Europe and western Asia. We must not make the mistake, for instance, of testing the military strength and vitality of the Turkish empire by the efficacy of the government in times and for the purposes of peace. Much of the recent discussion of the prospects of Russian and European intervention has been conducted in utter ignorance of the vast military resources furnished by the religious fanaticism of the Mohammedans of our day; and many persons evidently measure the possibilities of Turkish resistance by the standards of 1820 or 1854, in spite of the recent displays of unflinching courage and recklessness of death in the conflict with the Servians. We have no doubt as to the final victory of the Russians, if they decide to espouse the Servian cause; but it will not be the fruit of a single campaign, and it will be dearly purchased, both by themselves and by all the Christian populations in the rear of the Turkish armies.

In India the Wahabees have played a most curious part during the present century, and one of which we knew little or nothing until Mr. W. W. Hunter put us in possession of the strange facts disclosed by a series of trials for treason. It is true that the Indian branch of the sect is entirely unconscious of any affiliation with the Moslems of Nejed; that they have had as their founder a prophet or Imam of their own, for whose return to earth they look, and that Sayyid Ahmad reached independently some at least of the doctrinal conclusions which mark his resemblance to Abd-el-Wahab, and preached them for six years before he went on pilgrimage. During his visit to Meccah, which was in 1822, he aroused the suspicion and hostility of the Moslem doctors by the similarity of his teaching to that of the hated Wahabees, and was publicly degraded and expelled from the Holy City. This threw him into the arms of the party, and he returned to India by way of Nejed, with all his notions of reform made definite and explicit by the teachings of the Wahabee doctors. His earlier missionary labors had been in Bengal and its adjacent provinces, and he had already established a propaganda at Patna with four Kalifs (lieutenants) at its head. But he had rather denounced the abuses of Islam than proclaimed the duty of holy war to rescue India from its low estate as "the house of confusion." He had initiated disciples and levied a tax upon them for the support of his mission; but he now began to enlist an army in the north-

west provinces, and in 1824 he appeared in the mountains on the northern frontier of the Panjab, as the leader of a crescentade against the Sikhs. This *jihad* or war of zeal was proclaimed by his emissaries all over northern India. Up till 1830 his power as an insurgent leader grew steadily, and in that year he captured the Sikh capital Peshawar, and proclaimed himself the Khalif of Islam. But dissensions broke his power, and in the following year he was defeated in the mountains by a Sikh army and killed, after being constrained to evacuate the plains and abandon his conquests.

But although the movement met with a severe blow in his death, it still perpetuated itself, both as a wide-spread propaganda throughout northern India, and as a Moslem camp on the Panjab frontier. The Imam was not dead, said his lieutenants, but withdrawn from sight. The existence and character of the camp became well-known to the English government when their conquest of the Panjab made them heirs to all the troubles of the Sikh government. Between 1850 and 1863, it was necessary to send thirty-six expeditions against them. In 1863 and again in 1868, it was found necessary to dispatch a considerable force to break up their camp; and on each occasion the dangers of the expedition were great and its success only temporary. The camp still perpetuates itself, and in case of a war with the Afghans bids fair to become a source of trouble to the Indian Empire.

But not until 1863 had the English authorities any conception of the relation of the Patna propaganda to the frontier camp. In Patna its headquarters were a huge mass of buildings, which afforded space for seminaries and barracks; the more intelligent recruits were trained to serve as teachers and as tax-collectors; the rest were passed on by a sort of "underground railroad" to the Panjab frontier, after a course of teaching designed to inflame their zeal to the utmost. And the efforts of the organization were not confined to the revival of religion among the Mohammedans of India. They made conversions by wholesale, bringing in village after village, especially of the lower caste Hindoos, who have nothing to lose and everything to gain by such a change of faith. Hence the curious change which has been going on in Bengal under the English rule, and which first came to light in the returns of the recent census. When the English entered Bengal, the Moslems were a ruling minority; but they are now greatly in the majority in this, the most densely-peopled province of India. Mohammedanism is spreading

as fast in India as in Central Africa, and with the same general result of converting villages of timid, slavish, superstitious people, into proud, self-respecting men. They have also effected a union with the Faraizees of Bengal, another class of Mohammedan zealots and Puritans, who reject all the unessential additions made to Islam by its orthodox corruptors. And every Wahabee conversion added to the number of fighters and tax-payers. To go on the *jihād*, or to contribute to its support, are the two great practical duties of the faith. He who cannot do the former must not neglect the latter. If it be but a handful of rice set apart at every meal-time from their scanty store, every family must contribute to the "war of zeal."

In 1858 the presence of Bengali faces among those who were killed in an expedition against the frontier camp was noticed with surprise, but the trace was not followed up until 1863, when a Panjabee Moslem, who had served in that expedition and was now a sergeant of police, detected four just such faces while on his morning rounds. He made advances to them, was taken into their confidence, and learned that they were Wahabee emissaries on their way back to Patna. He arrested them, but the English magistrate refused to commit them, as the Indian police have a loose way of making arrests for the purpose of extorting money.

The sergeant of police took the matter to heart; his family honor was at stake. He sent word to his son, who lived in a Northern Panjabee village, to make his way through the outposts of both forces to the Wahabee camp and enlist there, and not to return until he had learned the names of the traitors who were serving its cause within the English territory. This command to face a thousand dangers was implicitly obeyed; and his son, after serving for a time, deserted during one of the Wahabees' raids, "and presented himself one evening at his father's hut, many hundred miles inland, worn out by travel, want, and disease, but charged with the secret." The one clue led to others, and the heads of the Wahabee conspiracy were soon under arrest. The three chief of them were Ja'-far, a writer of pleas at Themeswar; Mohammed Shafee of Delhi, a contractor for supplies of butcher's meat for the Indian army; and Yahya Alee, the head of the propaganda at Patna. These with nine others, but of lesser note, were found guilty of treason and sentenced to death—a sentence commuted to transportation for life. But the conspiracy still lives, and new trials of traitors in Bengal, as

well as new campaigns in the Panjab, mark its vitality at both extremes of the Indian Empire. That a Moslem was the chief instrument in its detection, is not without significance. The better class, probably the great majority of the Indian Moslems, are not Wahabees. They cling tenaciously to usages sanctioned by the traditions of centuries, and by the teaching of the great doctors, which the Wahabees denounce as apostasy. None the less, the Wahabee missionary speaks to them and to all Moslems from a great ground of advantage. He has the oldest traditions, the supreme authority, on his side. The law and the Prophet are with him. Hence his great success with the simpler and less sophisticated classes. Hence the ripples of agitation and discussion he has raised even among the learned respectables of Calcutta, whom he has driven to show reason how they can continue to be at once good Mohammedans and loyal subjects. Is not India "a house of confusion,"—a country of Islam subdued by the Infidel, to the overthrow and destruction of the institutions and the law of Islam? And, according to all doctors of the law, when a true believer finds himself in such a country, he is tied down to the alternative of *jihad* or *hejira*, war or flight. To settle this issue, the Mohammedans of Calcutta submitted the question to the heads of the three great sects at Meccah—where the Hanbalees, however, are not represented—and from each of the three obtained a decision against the Wahabees. India, they agree, is still Dar-ul-Islam, a country of the faith; but whether this leaves room for the obligation to go on the *jihad* because it is oppressed by the unbeliever, or whether the protection given to Moslem usages, even in the absence of a Mohammedan code and judges, does not render loyalty to the Queen lawful.

That Wahabeeism has not been suppressed by these prosecutions and others which have followed it, might have been expected. It is spreading over all the north of India stealthily and steadily, and may any day break out in a rebellion hardly less fierce than that of 1857. But even the fiercest fanaticism is not invincible, as has been seen in Ibrahim's conquest of Nejed, and in the final overthrow of the Murid revival.

ROBT. ELLIS THOMPSON.

BASILISKS—PHYSICAL AND MORAL.

THE basilisk was a fabulous creature of antiquity, a serpent or lizard of an indefinite construction, whose habits and ways are not generally known, but which had the power of charming its victims to destruction by the wonderful influence of its eye.

The Egyptian symbolism of snake worship, the far-off story of the serpent in Eden, the scriptural prophecy of enmity between the serpent's head and humanity's heel, and the fulfilled realization of this antagonism in man's instinctive hatred of the serpent tribe, have all given to this subject its full share of wonder and curiosity.

Even the Psalmist, in describing the wicked, says, "they are like the deaf adder that stoppeth her ear, which will not hear the voice of the charmer, charm he never so wisely."

This basilisk-eye, be it in serpent or cockatrice, or dragon or lizard, fastened itself upon its victim, and compelled it to rush to its own destruction, or to be powerless in the presence of its captor. It destroyed the true will and substituted a false one, and thus was all-powerful in its command over the enslaved creature before it.

This will do for basilisks in general. We have nailed our legendary figure-head to the subject before us. Let us come to a very curious study of Human Nature—physical as well as moral.

The poet Ovid, from Heathenism, and the Apostle Paul, from Christianity, alike describe this other false will of man.

Ovid says in his *Metamorphoses*, "Video melior proboque, deteriora sequor," a passage singularly like St. Paul's expression, "What I would I do not, but what I hate that I do."

Sometimes we can understand the reason for this false and ruinous will.

When Ginx's baby, a grown-up man of five-and-thirty, throws himself over London Bridge on the very spot where his father, just twenty-five years before, wanted to make way with him, we can understand and see the impelling cause. When Tom Hood's

"One more unfortunate,
Weary of breath"—

does the same thing, we know well enough the reasons of shame which took command of the poor shipwrecked nature.

So too when the cold and frozen traveler gives way to the sleepi-

ness of death, and lies down in the snow, meaning to rest there only for a moment, but in reality never rises again, and sleeps forever: or when the maddened inebriate, such as Edward Jenkins describes in his "Devil's Chain," deliberately plans his next debauch, as he would a summer's journey; or the flighty Frenchman, as the philosopher Buckle declares, jumps into the Seine because of the rise in the price of meat, we can account in some sort of way for the Basilisk Eye of destruction in all these cases. There is one scene in George Eliot's "Adam Bede," where this struggle between the instinctive love of existence and the fascinating and depraved desire for self-destruction is most vividly portrayed. It is found in the description of the unhappy Hetty walking about in the woods at night, hunting for the pool in which she was to drown herself. "After a little while Hetty started up again, feeling that darkness would soon come on; and she must put off finding the pool until to-morrow, and make her way to some shelter for the night. She walked through field after field, and no village, no house was in sight; but *there* at the corner of this pasture, there was a break in the hedges, the land seemed to dip down a little, and two trees leaned towards each other across the opening. Hetty's heart gave a great beat as she felt there must be a pool there. She walked towards it heavily over the tufted grass, with pale lips and sense of trembling: it was as if the thing had come in spite of herself, instead of being the object of her search. There it was, black under the darkening sky, no motion, no sound near. She set down her basket, and then sank down herself on the grass, trembling. The pool had its wintry depth now: by the time it got shallow, as she remembered the pools did at Hayslope, in the summer, no one could find out that it was her body. But then there was her basket—she must hide that too: she must throw it into the water—make it heavy with stones first and then throw it in. She got up to look about for stones, and soon brought five or six, which she laid down beside her basket, and then sat down again. There was no need to hurry—there was all the night to drown herself in." After this rich description of the girl's extensive preparations and final failure of will, Hetty falls asleep, and wakes in the cold night not knowing where she is, fearing she has done the deed and is no longer on earth, and then again fearing that the deed has not been done and that she is not now in the other world after all. "The horror of this cold, and darkness, and solitude—out of all human

reach—became greater every long minute: it was almost as if she were dead already, and knew that she was dead, and longed to get back to life again. But no, she was alive still: she had not taken the dreadful leap. She felt a strange contradictory wretchedness and exultation: wretchedness that she did not dare to face death: exultation that she was still in life—that she yet might know light and warmth again." Then after a very powerful description of the way in which the old love of life prevailed over the morbid, serpent-like, false will of the suicide, having run away as fast as she could from the terribly dark place of despair, and having found refuge in a sheep hovel, such as the shepherds passed the night in at lambing times, the conquest of human nature over the goadings of remorse, and the joy of escape from the jaws of death, is thus given: "Hetty sank down on the straw with a sense of escape. Tears came—tears and sobs of hysterical joy that she had still hold of life, that she was still on the familiar earth, with the sheep near her. The very consciousness of her own limbs was a delight to her: she turned up her sleeves and kissed her arms with the passionate love of life; soon warmth and weariness lulled her in the midst of her sobs, and she fell continually into dozing, fancying herself at the brink of the pool again—fancying that she had jumped into the water, and then awaking with a start and wondering where she was. But at last deep, dreamless sleep came; and the poor soul, driven to and fro between two equal terrors, found the one relief which was possible to it—the relief of unconsciousness"

Surely this most powerful painting reveals the tragical side of an experience which is common to many people in their quiet everyday life. We are not all lashed by the serpent stings of remorse; we do not as an habitual thing contemplate suicide as we contemplate our dinner; but there are very many people who feel dimly and unconsciously, or openly and with a recognition of it, this same strange false will in their nature, urging them on in a wrong and morbid way, to do the very thing they know perfectly well they ought not to do.

Just look for a moment at this basilisk idea in human nature in its *physical* aspect. According to our open-air or to our sedentary life will be to a very great degree our sense of physical danger.

Firemen, sailors, stevedores, house-painters and carpenters, have no sense of fear of falling. They overcome their sense of dizziness

by practice, and by accustoming themselves to their surroundings. But take a man who sits at a desk or table all day; make him go up a church tower or out on a high balcony; make him sit in the top-most circle of a hot theatre, or go over a high trestle-bridge; and out will come this basilisk idea, this strange dizziness, this insane desire to jump off or jump over; this false will of the suicide, this argument with your other self, this flutter and craze of the heart and brain. It is precisely like the rabbit, looking the destroying serpent full in the eye, and getting by inches nearer and nearer to it. Who has not felt this same self-destroying fascination as the lightning express train whirls itself with its sucking current past the station? How can we account for this strange desire we have to rush into the very jaws of danger and death?

Dickens describes this feeling in the account he gives of the death of Carker in *Dombey and Son*. "He heard a shout—another—saw the face change from its vindictive passion to a faint sickness and terror, felt the earth tremble, knew in a moment that the rush was come—uttered a shriek—looked round—saw the red eyes, bleared and dim in the daylight, close upon him—was beaten down, caught up and whirled away upon a jagged wheel, which spun him round and round, and struck him limb from limb, and licked his stream of life up with its fiery heat, and cast his mutilated fragments in the air."

Doctors tell us this desire to jump off high places and into dangerous ones, shows a morbid state of the brain, arising from the non-exercise of certain physical faculties. They say it can be overcome by practice, by habituating ourselves to an open-air life, and by a resolute determination to resist and overcome our fears.

Some time ago a party of gentlemen were sitting in a very high balcony window in a hotel in a South American city smoking their after-dinner segars. They were all professional men, who were off on a pleasure trip. Presently one of them excused himself, saying it was too draughty and he must go in; another said it was not light enough and he wanted to read; a third said he never enjoyed smoking in the open air, etc.

So in a few moments they were all back again in the parlor. Whereupon one of them said, "To tell the truth, my real reason for coming in was this: I felt such a strong and growing desire to jump over the railing that I was actually afraid to stay another moment;

it wasn't the draught which bothered me, it was a dizzy craziness." And each of the others confessed that after all it was the same indescribable terror and fear acting on them like a demoniacal possession which made them withdraw from the giddy height, and seek the safe parlor.

Now two or three hundred years ago, when Sir Matthew Hale, Chief Justice of England, declared there was no longer any doubt that actual witches existed, because they had been seen to be possessed with infernal spirits, or when Luther stood at the head of the cellar stairs calling down to the Devil below not to go on so and make such noises down there, this whole matter would have been referred to evil spirits.

A certain judge told some friends, who were comparing their dizzy symptoms on one occasion, that he never felt like wanting to throw himself down, until one day when he was walking over the rafters of a house that was in process of building; but that ever since that time, whenever the court-room became crowded and hot, and poorly ventilated, he felt the same feelings again, but always imagined that he was in some way walking over some dangerous rafters.

Another singular case which comes before the writer's mind is that of a young man who feared at one time he had some terrible cerebral trouble, very much like the deftly-worded symptoms of quack advertisements in the *New York Herald*. He wanted to throw himself off bridges and in front of locomotives, and suffered agonies whenever he went to a theatre or crowded gathering. But after all it was only a bad spell of dyspepsia, and that was cured by attention to diet, oatmeal and horseback riding. He says now he has only one lingering symptom left. When he goes to church and hears the organ play a minor passage, or when the preacher pauses in his sermon, he feels that he must stand up and "*holler out*," an experience which, while it is extremely ludicrous and distressing, throws some psychological light upon the contagious and spasmodic crying of penitents in a camp-meeting revival.

This then is the physical side of this subject.

We turn now to the *moral side* of it.

Here, too, we find this same phenomenon of the basilisk-eye of fascination presenting itself.

What is the story of the fall in Eden but this same human desire to obey the attractive drawing power which is lodged in the impractical and the impossible?

Eve *must* eat the fruit simply because she should not: Pandora's box *must* be opened, in classic fable, simply because it is forbidden. The attractiveness of sin is found not in the pleasure, but in the sinfulness of it, as when in Pepys' diary we find him saying: "Having had a dull time lately, I propose to get drunk next Friday night."

And in this light of the attractiveness there is in breaking the physical and moral laws of God, the story of the temptation of our Lord comes home with new meaning, when we find the Devil tempting him by taking him to the dizzy height of the pinnacle of the temple, and saying: "If Thou be the Son of God, cast thyself down from hence."

Alexander Pope says in his essay upon man:

"Shall burning Etna, if a sage requires,
Forget to thunder and recall her fires?
When the loose mountain trembles from on high,
Shall gravitation cease if you go by?"

No! The fires will burn on, and the mountain will obey the law of gravitation just the same; but men will climb up the volcanoes and walk under the hanging rock, in the same way that they will ride fast horses and sail in ticklish yachts, simply because of the fascinating spice of danger there is lodged in them.

This basilisk-eye of fascination rules in the moral as it does in the physical life. There is a charm in the possibility of sin as there is a charm in the possibility of danger. It is this which is the drawing magnet in the social and clerical scandals of the day.

The more people with a morbid moral streak in them, feel they must not do a thing, the more they will find some way by which it can be done, just as the man with some morbid physical streak in him, on the housetop, knowing it will kill him, feels the strange suicidal mania stealing over him, tempting him to throw himself down. Thus, while the "basilisk" was a mere fable of antiquity, the germ of its meaning lives to-day in the strange physical and moral longing after the impossible and the destructive, found in the mixed phenomena of this strange existence of ours.

WM. W. NEWTON.

THE EXTIRPATION OF THE LARGER INDIGENOUS
MAMMALS OF THE UNITED STATES.

WHILE the progress the century has wrought in respect to the development of the resources of our country is justly receiving so much attention, it may not be unfitting to notice briefly other attendant changes that are less obvious, though no less real, than the transformation of hundreds of thousands of square miles of wilderness into "fruitful fields," dotted with towns and cities, and intersected by a network of railways and telegraph lines. With the removal of the vast area of forest that has rendered possible the existence of millions of people where only a few thousand rude savages lived before, there has taken place a revolution in respect to the native animals and plants of this great region as great as has occurred in respect to the general aspect of the country. Not only has the indigenous vegetation given place largely to introduced species, but the larger native animals have been in like manner supplanted by exotic ones. While these changes do not pass unnoticed by the naturalist, they are less apparent to the general observer. A detailed account of them would be sufficient to fill volumes, but it would be mainly a repetition of the same story over and over again, the history of one species being essentially that of many others. While a few of the larger mammalia were speedily exterminated, others survived for a longer period, having in many instances a few representatives still left in the more unsettled mountainous portions of the States east of the Mississippi River.

During the early part of the seventeenth century, the walrus swarmed along the shores of the Gulf of St. Lawrence, and the bison ranged in considerable herds over nearly all of the country between the Alleghany Mountains and the Mississippi River. The moose was a common inhabitant of the greater part of both New England¹ and New York; the fisher and the marten ranged throughout the forests of large portions of the Eastern and Middle States; the elk, the gray wolf, the panther, the lynx, the black bear and the beaver were found in abundance over the whole eastern half of the United States, and the wolverine and the caribou lived far to the southward

¹ There is abundant evidence of the former existence of the moose in New England as far south as Connecticut.

of their present limits. While none of the smaller mammals have become as yet wholly extirpated, nearly all have greatly decreased in numbers; this being especially the case with all the different species of squirrels, the hares, the muskrat, the raccoon, the opossum, the white-footed and jumping mice, the weasels, the mink, and even the skunk.

This gradual though rapid decrease has been, in the main, the natural and inevitable result of the settlement and agricultural development of the country. Yet in many cases extermination has been needlessly rapid, through the insatiable desire inherent in man to kill something. In the case of the larger mammals, the record is too often one of wanton butchery, the game being destroyed whenever opportunity for it presented itself, regardless of whether it was needed as food, or whether it was within the destroyer's means to in any way utilize it. Hence the larger, the less sagacious, or the otherwise more easily-captured species, have always been the first to become extirpated. The walrus, being hunted for its ivory and its oil, soon became extinct in the Gulf of St. Lawrence; the bison wholly disappeared east of the Mississippi (south of Wisconsin) prior to the year 1800; the moose and the caribou were early pressed back into the remoter northern forests; and the elk everywhere quickly disappeared before the advancing settlements. Formerly abundant from the Great Lakes nearly to the Gulf Coast, its sole survivors east of the Mississippi river for the last few decades have been confined to the least frequented parts of the Alleghanies, where few, if any, still survive. Thirty years since it was abundant over nearly all of the prairies, plains and mountain valleys of the Great West, where it is now confined within comparatively narrow boundaries, and its present rapid rate of decrease portends its speedy total extirpation south of the forty-ninth parallel. The Virginia deer, once a numerous denizen of the whole eastern half of the United States, now scarcely exists in New England south of the forests of Maine and Northern New Hampshire, or in New York south or west of the great Adirondack wilderness, or anywhere in the Middle States away from the mountains. It has also disappeared from a large part of the Atlantic coast region further southward, and from the greater part of the area between the Great Lakes and the Tennessee river. The bear, the panther, the gray wolf and the lynx have become similarly restricted. The fisher, the marten and the Canada

porcupine, former inhabitants of the northern parts of the northern tier of States, as well as of the Appalachian highlands to or beyond Virginia, have only here and there a few lingering representatives in the least frequented parts of the mountains, and are much more rare than formerly in the forests of northern New England and the great unsettled region north of the St. Lawrence. The same is true of the beaver, except that it had a much more extended range to the southward, being a former inhabitant of Northern Florida and the middle and northern portions of the Gulf States, and of all the intervening region thence northward.

Were not the former abundance of the larger species of mammals and birds over the immense areas from which they have wholly disappeared,—to be seen there doubtless, “no more forever,”—so well attested by history as well as tradition, the fact of their former great abundance, or even existence, might well be doubted. History incontestably shows, however, that no country was probably ever better stocked with game than that portion of the United States east of the Mississippi River, where now almost nothing remains worthy of the sportsman's rifle. The early explorers speak of the woods abounding everywhere with game of every description, so that they had but to choose the kinds they most preferred. From Father Simon LeMoine we learn that on his journey, in 1653-1654, to the country of the “Iroquois-Onondagoes,” he found on the St. Lawrence, near Montreal, herds of elk and the common deer, which “seemed to follow them everywhere,” and which were so tame that some were killed “for sake of amusement, by blows of an axe.” He also speaks of meeting with herds of elk further up the St. Lawrence River, near Lake Ontario, numbering “five or six hundred” in a single drove.

Fathers Marquette, Hennepin, Marest, Gravier and others found, prior to the beginning of the eighteenth century, not only the bison in great herds on the prairies of Illinois and Indiana, but also deer and other large game in “innumerable quantity.” Vaudreuil, writing in 1718, says that whoever would reach the “Beautiful River” (Ohio) or the Sandusky “could travel without any danger of fasting, for all who have been there have repeatedly assured me that there is a vast quantity of buffalo and of all other animals along that Beautiful River; they were often obliged to discharge their guns to clear a passage.” La Hontan, in a description of his visit

to Lake Erie in 1687, says, "I cannot express what quantities of deer and turkeys are to be found in these woods, and in the vast meads that lye upon the south side of the Lake." The former abundance of the buffalo, the elk and the deer throughout the Ohio Valley, from the sources of its remotest eastern tributaries to the Mississippi, is attested by scores of writers, who speak of their occurrence in "herds innumerable." Boone and his associates found buffaloes more abundant in Kentucky and Tennessee, in 1769 to 1780, than they had "ever seen cattle in the settlements." They found them "browsing on the leaves of the cane, or cropping the herbage on those extensive plains, fearless, because ignorant of the violence of man. Sometimes," says Boone, "we saw hundreds in a drove, and the numbers about the salt springs were amazing." It is also a matter of history that "buffaloes, bears and deer were so plenty," in this part of the country, "even long after it began to be generally settled, and ceased to be frequented as a hunting-ground by the Indians, that little or no bread was used, but that even the children were fed on game, the facility of gaining which prevented the progress of agriculture," which did not advance "until the poor innocent buffaloes were completely extirpated, and the other wild animals much thinned," the cultivation of the soil in Kentucky beginning about 1795.

Charlevoix, writing in 1720 of the "Fur Trade in Canada," thus speaks of the great decrease of the game that had already occurred at that early date. "The trade," he says, "to which they [the French] confined themselves solely for a long time in Canada was that of skins or furs. It is impossible to relate the faults which they have here committed. The genius of our nation never, perhaps, was shown more than on this occasion. When we discovered this vast continent, it was full of deer and other beasts of chase. But a handful of Frenchmen have within a single age found means to make them almost entirely disappear, and there are some species of them entirely destroyed. They killed the originals, or elks [moose of Americans], for the sole pleasure of killing them, and to show they were good marksmen. Nobody thought of interposing the King's authority to put a stop to such an extravagant disorder. But the greatest evil proceeded from private persons, who applied themselves solely to this trade."

Unfortunately, what Charlevoix deprecates as a characteristic

fault of Frenchmen has equally characterized the emigrants of every nationality that have settled in America. It is but an instance of the reckless and wanton destruction of animal life that has everywhere marked the progress of the white race on this continent. Hundreds of similar instances might be cited where the larger game animals have been killed, either in mere wantonness or for a very trifling return. Less than a quarter of a century ago, the elk wandered in large herds over the prairies of Iowa, where it has since become wholly extinct. During the early settlement of the central and western parts of the state they were of great value to the settlers, furnishing them with an abundance of excellent food when there was a scarcity of meat-yielding domestic animals. During the severer weather of winter they were often driven to seek shelter and food in the vicinity of the settlements. At such times the settlers, not satisfied with killing enough for their present need, mercilessly engaged in an exterminating butchery. Rendered fearless by their extremity, the elks were easily dispatched with even such implements as axes and corn-knives. For a time they were so numerous that settlers could kill them whenever they desired; but indiscriminate slaughter soon greatly reduced their numbers, till in a few years only a few lingered where formerly were thousands.

In later years the same exterminating slaughter has been carried westward over the plains and Rocky Mountains to the Pacific slope. Not only have casual hunting parties from the frontier settlements waged an exterminating warfare upon them, from Texas northward over the plains to Nebraska and Minnesota, and throughout the parks and mountain valleys further westward; but skilled hunters have engaged in their destruction as a profession, killing whole herds in a day at points quite distant from any large settlement or line of travel. Though hunting ostensibly for the market, many of their victims are left unutilized, while in other cases their hides are the only parts saved.

No animal, however, has been so ruthlessly destroyed as the bison. From the time when the white settlers first invaded its haunts to the present, thousands have been killed annually in mis-called sport, while of many thousands more only the tongue or other choice morsel has been saved, the carcass being left entire as food for the wolves and other wild beasts, or to poison the air by putrefaction. At other times they have been slaughtered by hun-

dreds, and even by *hundreds of thousands* in a single year, for their nearly worthless hides alone.² Such has not only been the case in recent years on the plains of Kansas, but during the last century was practiced east of the Mississippi from Kentucky to Western Pennsylvania, so many being sometimes killed at single localities that their murderers would be driven away from the immediate vicinity of the scene of slaughter by the effluvia arising from the festering remains of their defenseless victims.

According to Strachey, deer were so abundant in Virginia, that droves of fifty to two hundred were frequently seen by the early settlers; and Thomas Morton relates that in Massachusetts a hundred deer were seen in spring within the compass of a mile. From contemporary and subsequent writers, we learn that the Virginia deer occurred all along the Atlantic seaboard, as well as in the interior, in almost incredible abundance. It is related that as late as 1818, three hundred deer were killed in Luzerne county, Pennsylvania, in a *single day* by a large party of hunters who had assembled for a grand hunt.³ Generally, however, the deer rapidly decreased about the settlements, becoming scarce along the coast of the Eastern and Middle States long before the close of the eighteenth century.

The rapacious animals appear to have been, in early times, in proportionate abundance. Early in the seventeenth century, packs of the gray wolf not only made "night hideous" throughout the interior, but their dismal cries were heard along the shores of Massachusetts Bay, while panthers, bears and lynxes were by no means rare occupants of the forests everywhere. So numerous were they that they rendered themselves greatly obnoxious to the settlers, by preying upon their domestic animals; and the local governments soon adopted the policy of paying premiums for their destruction. This resulted in their soon becoming greatly reduced in numbers near the settlements, and has gradually effected their extirpation over immense areas of their former habitats. As late as 1706 they were, however, in annoying abundance in the immediate vicinity of Philadelphia, and along the frontier settlements east of the Alleghenies continued till a considerably later period to make great havoc with the sheep. In Massachusetts and other portions of New Eng-

² See this journal, Vol. VII., March, 1876.

³ Pearce (Stewart), Annals of Luzerne County, Pennsylvania, p. 499.

land they are said to have quickly retired to the interior on the extirpation of the deer, their chief natural prey. Foxes were also so numerous as to be a great annoyance, but a liberal premium for their heads soon greatly reduced their numbers.

Bears were also eagerly hunted for their flesh and their oil. So abundant was this animal at certain localities one hundred and fifty years ago, that four hundred were killed, according to Charlevoix, in a single winter at Point Pélée, on the northern shore of Lake Erie; and Wailes states that one hundred were killed about 1796, "in a single winter's hunt" between Natchez and the Homochitto, in Mississippi. Hundreds of writers also refer to their former abundance along the Atlantic Coast from Maine to Florida. Though often destructive to the swine, they were far less so to the other domestic animals than the wolf, or even than the lynx and panther.

The causes that have led to the extirpation of the larger mammals have been mainly three: The larger herbivorous species were hunted for food and for the pleasures of the chase; the fur-bearing species for their furs; while the rapacious species, though coming largely also under the latter head, were also pursued with the express object of effecting their extermination, owing to the depredations they committed upon the flocks and herds of the settlers. To hasten this result, premiums were early offered for their destruction by the colonial governments, varying at different times and places from two to twenty shillings per head for wolves, and a proportional amount for foxes. Large premiums were also offered for the destruction of panthers, lynxes and bears. At some localities the destruction of raccoons, minks, skunks and squirrels was also encouraged by law. Kalm says: "It seems almost inconceivable what a sum of money has been paid for gray and black squirrels' heads, in the province of Pennsylvania only, from the first of January, 1749, to the first of January, 1750; for when the deputies from the several districts met, in order to deliberate upon the affairs of the province, each of them complained that their treasuries were exhausted by paying so much for squirrels; for at that time the law had appointed a reward of three-pence for each squirrel's head. . . . It was found, by casting up accounts, that in that one year eight thousand pounds of Pennsylvania currency had been expended in paying these rewards. . . . Many people, especially young men, left all other employment and went into the woods to shoot squirrels; but the

government, having experienced how much three-pence per head took out of the treasury, settled half that sum upon each squirrel's head."⁴

As early as 1630, the court of Massachusetts ordered that any Englishman who killed a wolf should have one penny for each cow and horse owned in the colony, and a farthing "for each sheep and swine." In 1698, the town of Lynn, Massachusetts, voted to pay a reward of twenty shillings for each wolf killed in the town, and two shillings for each fox, and the records of the town show that during the next few years the town paid for the destruction of four hundred and twenty-eight foxes, all killed "in the Lynn woods and on Nahant."⁵ Hundreds of similar illustrations might be cited of the means taken in early times to reduce the number of the rapacious and other noxious mammals throughout the colonies—a practice that has been continued by some of the more newly-settled States to the present time.

As is well known, one of the earliest and most important sources of wealth to the early American colonists was the fur trade; and efforts to obtain the monopoly of the traffic led to many difficulties between the French, Dutch and English colonies. The French and English are said to have lived for many years almost wholly by the fur trade, "very many old planters gaining good estates out of small beginnings by means thereof." Thomas Morton affirms that as early as 1630, twenty-five thousand beaver-skins were exported from Canada in a single ship in one year. At about this time the Dutch realized twenty thousand pounds sterling a year from the traffic in beaver fur alone. It is stated in an official paper that prior to 1650 the fur trade was more attended to by the Dutch colonists than agriculture, at which time measures were taken to further promote the "introduction and rearing of domestic cattle." For many years the trade in beaver fur in the New Netherlands alone amounted to thirty-five thousand to forty thousand skins a year, "in addition to other peltries." At the same time the fur trade was prosecuted with equal eagerness by the French and the English. As may be easily imagined, such great destruction of the fur-bearing animals soon reduced the supply, which, as early as 1687, seems to have fallen off at many points fully seventy-five per

⁴ Kalm's Travels, Forster's Translation, Vol. I. p. 320.

⁵ Alonzo Lewis's History of Lynn, p. 144.

cent. The fur trade, however, has flourished to a greater or less degree from the first settlement of the country to the present time, the trappers and traders following their game to the remotest recesses of the continent, as the source of supply receded from year to year from the Atlantic coast to the remoter uninhabited parts of the country. As the most valuable fur-bearing animals live mostly to the northward of the United States, the greater part of the furs taken found their way to foreign markets, mainly by the way of the St. Lawrence, the heavily forested region lying immediately to the northward of this river affording an abundant supply for many years. In 1786, statistics show that not less than 705,000 skins were exported from Quebec alone, amounting in value to £203,378. As shown by the subjoined table,⁶ these belonged to about fifteen different species of animals, varying greatly in the number of each and in their relative value. The muskrat furnished the maximum number for any one species, namely, 202,719 skins; deer came next, yielding 132,271; beaver followed with 116,623; raccoons, with 108,521; martens, with 48,463; otters, with 23,684; bears, with 19,362; wolves, with 12,923; elks, with 7,555; lynxes, with

⁶ Valuation of furs and peltries exported from [Quebec] in 1786. From the Massachusetts Historical Collections, Vol. VI., p. 57.

		£	s.	d.
6,213	foxes	9s.	2,845	17 0
116,623	beaver	8s.	69,600	0 0
48,463	martens	6s.	14,530	16 0
23,684	otters	20s.	23,684	0 0
5,959	minks	2s.6	1,199	7 6
3,958	fishers	5s.	898	10 0
17,713	bear	30s.	26,569	10 0
1,659	cub-bear	20s.	1,659	0 0
126,794	deer in hair	4s.	25,358	16 0
5,477	“ half-dress	2s. per lb.	547	14 0
202,719	musquash	6d.	5,067	19 6
108,521	raccoon	3s.	16,278	3 0
2,977	open cat	5s.	744	5 0
3,702	cased “	20s.	3,702	0 0
7,555	elk	10s.	3,777	10 0
12,923	wolves	10s.	6,461	10 0
506	wolverine*	15s.	379	10 0
64	tigers†	12s.	38	8 0
157	seals	3s.	23	11 0
480	squirrels	6d.	12	0 0

Sterling £203,378 7 0

* Wolverines (*Gulo luscus*).

† Panthers (*Felis concolor*).

6,679; foxes, with 6,213; minks, with 5,958; and other species in smaller numbers—panthers, with only 64, furnishing the smallest number. The beaver ranked highest in aggregate value (£69,600), the bear (£28,228), the deer (£25,905), and the otter (£23,684), next. This being the number exported during a single year from a limited region, these statistics indicate, not only the great pecuniary importance of the fur trade, but the rapid depletion of the game animals that has, at one time or another, occurred over nearly the whole continent.

History shows that the fur-bearing animals were so abundant in the United States, from Virginia northward, at the time the first colonists arrived, that their capture, as above stated, formed an important branch of industry for many years, yielding large profits, and in some instances absorbing the attention of the first settlers to the neglect of the agricultural development of the country, the abundance of other game yielding good supply of meat. Soon, however, the deer, the elk, the moose, and the bear began rapidly to decrease and the fur-bearing species were quickly extirpated in the immediate vicinity of the settlements. Hunting, however, has ever formed a prominent and favorite occupation with the pioneers of civilization, and one so enticing and profitable as to have always engaged the attention of the roving and adventurous class who have everywhere occupied the country in advance of permanent settlements, in the westward progress of civilization. The trans-Mississippian States and Territories furnish the same record of former abundance of game, and its rapid extirpation. Not only has the bison, formerly so abundant over all of the great plains, become already restricted to a comparatively small area, but the elk has wholly disappeared from more than half of its former range within the United States; the mountain sheep, once common throughout the mountains between the great plains and the Pacific coast, from Mexico northward, where it was often seen in droves of hundreds together, has become wholly exterminated at many points, and is every year rapidly disappearing; the black-tailed and other western species of deer are also sharing the same fate of rapid extirpation, and the beautiful prong-horn, or so-called American "antelope," is killed by hundreds of thousands annually by professional hunters, who pursue them for the western markets. From Colorado, New Mexico, Nebraska, Wyoming, Idaho, Utah, and the Pacific States, come the same re-

ports of the rapid destruction of the larger game animals, and of their total extirpation near the more settled portions of our trans-Mississippian territory, especially throughout the region immediately bordering the Union Pacific and Central Pacific Railroads.

With the disappearance of the deer, the bison, and the other larger herbivorous mammals, the gray wolf and the coyote would naturally greatly decrease in number, from the failure of an adequate supply of food for them; but their disappearance has, in some cases, been in advance of that of their natural sources of food; so that these animals furnish two of the most notable examples of a decrease in the animal life of the plains through the direct influence of man. Owing to the large demand for their skins for the manufacture of robes, "wolfing" became, a few years since, a very profitable winter employment. The old method of hunting them with traps and guns gave place to a more wholesale destruction of these animals by the use of poisons—a method entailing a much less outlay of time and labor, with far more abundant returns. By placing a piece of bison meat or venison impregnated with strychnine in places these animals were known to frequent, the "wolfers" had but to visit the points where the tempting bait had been exposed, and remove the skins from their unfortunate victims. Sometimes as many as ten or a dozen dead wolves would be found scattered over a small area, and occasionally even as many as thirty to fifty within a short distance of a poisoned bison carcass. Thousands of skins would in this way be gathered in a few months by single parties. But the harvest was too abundant to be of long duration. After two or three seasons the lugubrious howling of a pack of gray wolves was a thing almost unheard, where a short time before it was the constant and characteristic accompaniment of night on the plains. The coyote became almost a rarity, where it was previously everywhere met with; and the little kit-fox, or "swift," perished by thousands by the same ignominious means.

Among the most interesting chapters that yet remain to be written respecting the natural history of this country, are those of a statistical character, relating to the former abundance and extirpation of the larger mammalia. Not many years will elapse before many of them will become practically extinct, if not wholly so, throughout the greater part of the United States, their former existence being merely a matter of history. Then the naturalist, in lieu

of having the animals themselves to study, may turn his attention to antiquarian research, and explore the different town and other local records for statistics relating to their destruction, and data for the determination of the limits of their former respective habitats. These data exist as records of premiums paid for the destruction of the noxious species, and of the number of skins annually shipped as peltries at different points of export, or by leading trading-houses.

As already stated, much of the destruction of mammalian life in the United States during the last two hundred and fifty years has been the inevitable result of the transformation of a forest wilderness into a fruitful and habitable country. Most of the rapacious species, and some of the rodents, were inimical to agriculture, the one preying upon the domestic cattle of the settler to such a degree that their extirpation was almost an absolute necessity, and the latter levying far too heavy a tax upon the grain fields to render their unchecked abundance at all compatible with the common weal. The larger herbivorous species, as the elk, bison, deer and moose, have been often immoderately persecuted, and too frequently without an ameliorating excuse. Yet the necessary reduction of the forests and the cultivation of the open lands must ultimately have greatly checked their increase, while a large proportion would be naturally and properly sacrificed as food, so that eventually their extirpation would become almost inevitable. Yet with proper restrictive legislation the common deer, and perhaps the moose and elk, might at least have been still preserved in moderate abundance over considerable areas east of the Mississippi, over which they long since ceased to exist. There is, however, no reasonable excuse for the rapid extirpation of the bison over the immense region of uninhabited country from which it has so rapidly disappeared, or for the speedy depletion of other large game animals over our vast trans-Mississippian plains and mountain areas. Only recently, and in the older States, has any check been placed upon the destruction of the larger game animals. Generally the game protective laws seek to check the destruction of game during only what is termed the "close season," the hunter being left free to wage at other seasons the most exterminating warfare.

A single illustration will serve to show what the different State and Territorial governments might do to prolong the existence of the different members of the deer tribe, in regions contiguous to

thickly settled districts. In Massachusetts the Virginia deer many years since became exterminated throughout the greater part of the State. A considerable number remained, however, in the towns of Wareham and Sandwich, in a forest region of some two hundred square miles in area, situated mainly in the northern part of Barnstable county, as late as 1830, though greatly "thinned off annually by the hunters." "In January, 1831," says a trustworthy writer, "a heavy snow, lying about three feet deep, so impeded their motions as to prove fatal to a large portion of the stock. A number of people provided themselves with snow-shoes, and pursued these beautiful animals, killing and capturing not less than two hundred," of which about forty were taken alive.* A few, however, still survive there by aid of legal protection. A few years since, a law was passed by the State, totally prohibiting their destruction for several years, during which time they so increased as to become again quite abundant. Last winter, the close period having expired, not less than one hundred are said to have been killed there. Considerable numbers likewise still exist on Naushon Island, where they have been similarly protected.

This shows that in regions as thickly populated as Massachusetts, the deer may, by proper legislation, be easily preserved, and indicates what might be done for their preservation in other States by means of stringent legislation, without detriment to private interests. In a similar way not only the deer, but the bison, the elk, the mountain sheep, the prong-horn, and the black-tailed and other western species of deer might be preserved over considerable areas of the public domain west of the Mississippi River, provided the general government, or the different trans-Mississippian States and Territories, would provide and enforce suitable enactments for their preservation. Thousands of square miles might now be properly set apart for game preserves, where these species should be rigidly protected for a series of years, till their natural increase should warrant their limited annual destruction under proper restrictions. Intelligent legislation could doubtless do much to check the rapid decrease of the larger game animals of the country, without which their total extirpation will not be long delayed. J. A. ALLEN.

* James Thacher's *History of the Town of Plymouth*, p. 338.

FROM THE NOTE BOOK OF AN ISHMAELITE.

[ONE of the mysterious Oriental sects, whose character was but recently fully disclosed to us by a Christian convert, bear this name of Ishmaelite. But they are mere *parvenus* and nobodies in comparison with a much older and larger, though more loosely organized body of Ishmaelites, the spiritual descendants of him of whom it was foretold, "his hand shall be against every man's hand, and every man's hand against his." Its chief modern representatives in Europe are Walter Savage Landor, Thomas Carlyle, John Ruskin and Arthur Schopenhauer. But it is widely represented in our own country, and the esteemed correspondent who furnishes us with these scraps, is but one of its lesser lights among us.]

WHAT a pity it is that so much of the intellectual energy of our time is expended on the study of Shakespeare! I do not deny his greatness as a poet, especially as a psychological poet. No man ever grasped the types of human character in such clear vision, or showed such skill and insight in tracing the inner growth and development of minds. But his writings do not exert any elevating influence at all proportional to their greatness as works of art. They are too realistic, too void of all ideal teaching, to infuse into men a wholesome discontent with what they are, and a wholesome aspiration for better things. In this respect Shakespeare is far inferior to Spenser and Milton, Plato and Ruskin, whose works should be far more studied than they are. The realistic writers have indeed the charm of variety and actuality; each of them gives us a whole market-full of people as new acquaintances. The idealists give us but one. Milton does little else than tell us of Milton, but John Milton is worth all of Shakespeare's market-place. The man who had lived an epic life, needed to write about nobody but himself.

There is an attempt making to hold up Shakespeare as a great social and historical teacher, but nothing could be more absurd. He has, for instance, in his English plays, everywhere misread and misinterpreted the social questions of his own time and country. Modern investigations cast every day more and more discredit upon his pictures of the relation of the lower and the higher classes in England in the later Middle Ages. Here lay a great tragedy under his

very eyes, with its open secrets unread. To him the only motives evident in the great uprisings of the Commons were gross, fanatical ignorance, hatred of lawyers, and fantastic theories of popular rights. As old John Campbell used to say, "Shakespeare was a bloated aristocrat."

I have long projected a "Society for the Promotion of Cruelty to Animals," and I have some hopes of getting it under way one of these days. If it felt the need of a banner, it could adopt that of the rival society, with the omission of the sentimental angels whose effigies now disfigure it. And for a motto it might take the great truth, "Animals have no rights that men are bound to respect." How can they? They are not persons, and rights inhere in persons only, and the existing idolization and idealization of animals is very largely due to the wretched decline in our estimate of the value, dignity and responsibility of personality. That is not its only source, however; another is the growing horror of mere pain and physical suffering, which calls itself philanthropy, while it ignores and subordinates everything that makes man truly a man. It is this philanthropy that decries all war, seeing in the suffering of the battle-field an evil which more than outweighs all the spiritual miseries of a nation's degradation or slavery. So wonderful is our horror of the evil with which we can sympathize in nerve and muscle; while that which is less tangible, but infinitely greater, is invisible to our moles' eyes. Hence our new-fangled worship of the "God of good nature," who has, as James Russell Lowell says, "put out hell-fire with sugar and water." And our animal worship, while blameless enough in itself and when kept in moderation, is nothing but a branch of this huge cultus of philanthropy or devout animalism.

All history shows that the classes of persons who have shown the most attachment to animals, have been characterized by but slight attachment to the human species. The Brahman will not knowingly kill a louse or a flea; but he consigns the Pariah to eternal degradation without a sting of compunction. The early Christian anchorites tore themselves away from home and kindred to save their own souls in the desert. Jerome draws the life-like picture of a son escaping over the insensible body of his mother, who had swooned on the threshold in her attempts to detain him. But their biographies

abound in stories of their familiarity with their wild-beast neighbors of the wilderness. Christianity indeed abolished the games of the circus, but solely because of the sacrifice of human lives in the gladiatorial displays; and horse-racing took their place as the peculiarly Christian type of amusement, and St. Eligius, who rendered aid at a critical period, became the patron saint of jockeys. The horses of a Christian had been bewitched by a pagan competitor, but on representation to the good saint as to how much the social prestige of the Church would be affected by the result of the coming race, he sent his drinking-cup to the Christian's stables to disenchant them.

In our own century, Arthur Schopenhauer was equally distinguished for his love of dogs and his detestation of mankind. He delighted to contrast the imaginary virtues of the one with the deep-seated viciousness of the other. He would not drink at a public fountain for fear of being stabbed in the back; and he held it an axiom that one should always bear in mind that the best friend is sure to turn rogue and treat you scurvily before all is done. A fit high priest for the worship of the beast from whom the human race has suffered the most terribly! If we were to weigh the agonies of a single person dying of hydrophobia against all the alleged benefits man has derived from the dog from the days of Ulysses to the present, the latter would kick the beam.¹ And when we add to this horror the loss of millions of dollars every year in sheep and other forms of property, it becomes a wonder that a practical people like ours still tolerates the existence of dogs in our midst.

All our Shakespeare men ought to join in the efforts to suppress this noxious beast, for their great master has never a good word for a dog. But no doubt they will be just as inconsistent as Schopenhauer, whose master Goethe hated dogs with a supernatural intensity of hate. And to Shakespeare and Goethe we may add the Bible, which, from Genesis to Revelation, uses the dog's name as

¹ A few years ago we should have been told that hydrophobia existed only in people's imaginations. A proclamation to that effect appeared in the papers of a neighboring city a couple of summers ago, emanating from the high-priest of the animalists; just two days after came the frightful report of the agonies and death of a professional dog-fancier, who had been all his life equally skeptical as to the very existence of hydrophobia.

a synonym for everything that is vile, abominable and filthy. "Is thy servant a dog, that he should do this thing?" "Without are dogs." One solitary passage from the Gospel is pleaded by the dog-lovers. As Lazarus lay at the gate of Dives, "moreover, the dogs came and licked his sores." That, they think, was all the comfort he had; but the original (*ἀλλὰ καί*), and even the English translation (*moreover*) when rightly understood, tells us that that was the climax of his misery, to be touched by beasts so filthy and abominable. "These wild and unclean beasts," says Dr. Van Oosterzee in *Lange's Commentary*, "moreover licked his sores, and thereby increased the pain of the helpless Lazarus. To describe his suffering as mitigated through the compassion of the brutes, would be directly opposite to the intention of our Lord."

Prof. Van Buren Denslow, of Chicago, has the courage to strike a chord which is not in tune with our Centennial rejoicings, in a published article on "What we lost in 1776." He thinks it was a great mistake not to have transferred Parliamentary government to the new republic, by surrounding the President by a responsible cabinet, who should retire from office whenever they ceased to have a majority in the House of Representatives. Perhaps that would have been better than our present political methods, but it would hardly have worked without making the President such for life, and bestowing the same tenure of office on the Senate. For the plan would have concentrated power and influence in the lower house of Congress, and in some way the Executive and the Senate must have been compensated for the comparative insignificance of their political positions.

One thing that we have not lost since 1776 is principle and honesty in high places, and purity in the management of the government. "Far-off hills look green," and "the men of 1776" were not all of them Washingtons. A considerable number of the Continental Congress would not have liked to face an investigating committee of the modern sort. The secretary of that Congress, Charles Thomson, occupied many of his later years in writing its history. For this purpose he was furnished with a vast body of documents and letters by the families of the members, besides possessing an unequalled familiarity with the whole course of events during the Revolution. When his work was finished, a number of his friends came

out at his invitation to his country seat in the neighborhood of Philadelphia, and as they drove into his court-yard they saw a smouldering mass of half-burnt paper just inside the gate. On joining their host on the verandah, they learned to their great amazement that this was the disposal he had made of his history. On reviewing the whole work, he had been impressed by the amount of pain its publication would inflict upon the innocent posterity of men whose good name was still unimpeached; and not seeing any compensating gain to posterity in the possession of the complete story, he generously destroyed it.

A few weeks before his death, Vice-President Wilson was dining at the same table with a well-known Bishop of the Protestant Episcopal Church, who raised the question as to the degeneracy of our public men with each generation of the Republic. Mr. Wilson spoke at some length from his own long experience of public life, comparing the many Congresses of which he had been a member, and showing how rapidly and decidedly the moral character of their membership had risen during the recent decades of our history. Especially have drunkenness, profanity and licentiousness decreased among public men. The heroes of forty and fifty years back, whose lives are the theme even of our Sunday-school books, and whose characters are continually held up to the admiration and imitation of our young people, were almost to a man persons whose morals would not now bear inspection. And even the confusions and disturbances which occur in the halls of Congress, though sufficiently numerous and undignified, are as nothing to the disgraceful rows which once took place there.

All this is not worth saying, were it not that there is prevalent among us an unwholesome tendency to despair of the present as utterly degenerate.

What a fuss our religious people made over the proposal to open the Centennial Exposition on Sundays, when they themselves have made Sunday the most laborious and restless day of the week. The "active Christian worker," who comes up to the standard set for him by current church opinion, goes to bed on Sunday night about as tired a man as can well be imagined. Two long services and an evening prayer-meeting, with two Sunday-school sessions, and, it may be, street preaching or tract distributing or religious visiting inter-

spersed, make a hard day's work; and I have heard these people confess again and again that no day so utterly tires them as that which they call the Sabbath or Rest-day. The idea of *rest* is fundamental to the institution of that day, but none so utterly ignore it as its especial champions.

"But how can they help it?" In many ways. Let lay preaching and exhorting be confined to the few—the very few—who have some gift for it, and let them make it their business, as Moody does. The clergy often make the pulpit a weariness to the flesh; but of all the dry pulpiteers I ever heard, the weakest and the driest was juicy in comparison with the public haranguers whom our Y. M. C. A. send out into the highways and byways on Sunday afternoons. Their only qualification seems to be a full assurance of their own excellence and piety, and a full conviction that the crowd whom curiosity gathers around them are utterly godless. Both conclusions I have my doubts of.

Then, in the next place, abolish that excrescence upon modern church-life, the Sunday-school. Establish night-schools on week days, if you will, and teach the Bible along with other branches to those whose own homes do not afford much Christian nurture. But leave the children where God put them, with father and mother, on Sunday. What is gained in the case of a few who would then get no instruction, is lost in the case of multitudes whom the present system takes away from what would be much better and more effective training, training not now given because parents feel relieved from the responsibility. On the other hand, absorb the best parts of the Sunday-school into the church's service. Make preaching more conversational and more expository. Restore the Apostolic liberty of asking questions, so that the pulpit shall no longer be "coward's castle," in which a man may say what he pleases without contradiction or question. Make the church less formal and more social, more a place of delight and edification for persons of all ages.

Our country seems doomed to run mad after decimal systems, if the scientific people can manage to infect them with *metres* and *grammes*. There is still a wholesome conservatism, which keeps us where we are; but in all sorts of insidious ways the new measures are introduced, especially in the Government service. Thus in the

post-office they will make you pay six cents for a half-ounce letter, on the ground that half an ounce is something over a given number of some sort of *grammes*, which an act of Congress has substituted for the old half-ounce.

The most popular argument for the new system is derived from our decimal system of money, which we are taught in our schools to regard as something so perfect as to be incapable of improvement, and as infinitely preferable to the English system of pounds, shillings, and pence. I am of exactly the contrary opinion. I think that the English money was one of the things lost by the Revolution, which we might very well have retained, and that for two reasons. *Firstly*, the English system contains three units of value; ours has only two, for all attempts to bring either dimes or eagles into popular use have failed. The former is too small, and the latter too large. Now in all ordinary computations three units are needful to designate respectively small sums, large sums, and medium sums. As it is we can only exactly and by a word express small sums, for the dollar is midway between medium and large. Five dollars is not a unit, but the popular impulse and desire to make it one is unmistakable. Now this is no trifle, as it may seem to the thoughtless; the popular appreciation of exact values depends greatly upon the correspondence of the unit of money with the popular forms of thought; and our system is about as far from that as well can be. An Englishman hearing a sum stated in pounds and shillings, or shillings and pence, has a far better appreciation of the amount designated. *Secondly*, our decimal system of money is bad because of the limited divisibility of *ten*, the basis of the system. In popular thinking a thing is cut up first into halves, then into quarters, then into half-quarters; never into tenths or fifths, and rarely even into thirds. Hence the popular parts of the dollar—fifty, twenty-five, twelve and a half, and six and a quarter cents. For a long time, till 1857 really, the old Mexican *levy* and *fiip* supplied us with coins which corresponded to these divisions, and one could actually pay a fraction of a dollar in silver. But the *cacothetes decimale* reached its climax at that time, and Congress legislated out of circulation the most popular coins we ever had. But the habit of calculation by halves, quarters, half-quarters, and quarter-quarters could not be abolished; it is rooted in the very intellect of the people, and it still survives in popular practice. Every retail dry goods store,

for instance, expresses its prices in these popular terms, and—like our Philadelphia railways—makes its customers pay a cent for every odd fraction. The decimalists tried to put down the practice, even before the war. Scientific and economic ladies and gentlemen refused to buy when the price was not given in even cents. But the popular instinct was too strong for them, and nothing would be more popular to-day than the reissue of the old coins. Now the English coinage gives full play to this popular instinct. You can halve and quarter the English pound and shilling over and over again, without getting out of the range of the actual coinage. Indeed, the only instance in which the English coinage gave out in this direction was when a cry came up from Scotland for half farthings, to enable that economic people to contribute to the relief of the Irish famine.

What I have said of our coinage would apply with equal force to a decimal system of weights and measures. The proposed change would give us systems incommensurate with the terms of popular thought, both in their values and their divisibility. The latter objection would, indeed, be removed by changing the base of our system of numeration from *ten* to *twelve*—a change far better worth making than any mere alteration of the secondary arrangements in question.

J. D.

EDUCATION AT THE VIENNA EXHIBITION.¹

A PART from the general value of the Centennial Exhibition as a means of education, it has a special interest as the gathering place for seeing and comparing the various methods and the apparatus of education used in this and other countries. The Pennsylvania system is admirably illustrated in the building specially erected for the purpose. There are shown the results in most of the Soldiers' Orphans' Schools—for the history of these our readers can look at the recently published State History—and the books and appliances in

¹ Rapport sur l'Instruction Primaire à l'Exposition universelle de Vienne, en 1873, par *F. Buisson*, ouvrage publié sous les auspices du ministère de l'instruction publique. Paris, Imprimerie Nationale, 1875. By *F. Buisson*.

(Report on Primary Education at the Vienna Exhibition, published by the Minister of Public Instruction.)

use throughout the State. Many other States have similar special exhibits—Massachusetts in the Eastern Gallery, Illinois in the Northern Gallery, of the Main Building; Belgium has a small model school-house within its exhibit in the Main Building; Sweden has a very attractive school building, full of working material; Germany has sent a large collection of school books, maps and other necessary material for school work; the Kindergarten system is represented in several departments; and almost the whole ground of education seems to be covered. A question of great interest for the exhibitors, as well as a matter of importance for the judges in this large, varied and complicated department, is how best to consider all the subjects presented, to classify and compare them, and to show by medals and diplomas the standards of excellence and the varying degrees of success attained by the several States and other educational bureaus represented. Some idea of the way in which this work ought to be done, may be derived from the unpublished, but official report on Primary Education at Vienna, made by Mr. F. Buisson.

The French Government thought the subject so important that it printed, in a volume of three hundred and fifty pages, the notes of the official reporter, with full details of the material that was exhibited, and a statement of things omitted from the exhibition, but of which a knowledge was necessary to make even a basis of comparison. The Paris Exhibition of 1855 was the first where there was a special subdivision of elementary education. At London in 1862 there was a "class," or group, specially set apart for Education, and as there had been, for eight years, a permanent museum of education at South Kensington, the plan of exhibiting school material was very well considered, but it was on so large a basis that no other country could come up to the requirements of the English standard. In Paris in 1867, the French exhibit showed to great advantage and very thoroughly all the methods, means, material, work and results of the "Primary Schools" of France. In Vienna every thing was on a great scale, and the group which dealt with education was intended to supply a sort of picture of modern civilization, a review of progress in education, each country being called on to furnish the details of its system of education and to illustrate it by showing both the means used and the results obtained. The scheme was impracticable, for it is simply impossible to convey by any material representation, the influence or the methods of education; but

still it brought together an exhibition of an unprecedented kind. Fourteen nations took part in the group of Education, ten of them with varying degrees of completeness: Austria, of course, foremost, France, Germany, Sweden, Switzerland, Italy, Belgium, Spain; Portugal and the United States. Holland sent a volume of official documents; Russia, maps and reports; Egypt, a few school books; England, some school benches and school material from India. The United States had an actual school house, and—besides books and furniture—the largest and most instructive collection in the whole exhibition of the work of the scholars. In strong contrast to the method of comparison adopted in Paris, by which the whole exhibit of one subject from all countries could be seen and studied together, is the arrangement common to Vienna and Philadelphia, of a purely geographical distribution. Still the work done by the French reporter deserves study as a guide for those who want to know what to find in the vast extent of the "Centennial." Of course, for our foreign visitors, our Public Schools, as seen in everyday working, are a much better instruction than any mere abstract. Here in Philadelphia we have over one hundred thousand pupils in five hundred school houses with 1776 teachers. In Paris, with two millions of inhabitants, there are just about the same number of scholars, school houses and teachers. In all the literature, and the art and science, of pedagogy, the Germans are the foremost people of the world. The number of works written on school architecture, ventilation, furniture, and all that has to do with the health of the scholars, is almost beyond limit. Here we have within a few months seen almost the first serious consideration of the subject in the report made by the Board of Education in this city and the discussions of the Social Science Association.

In Switzerland, and many German towns, the law prescribes a very high standard for the building and furnishing of school houses, with abundant means of enforcing its provisions. These relate to the number in each class, the minimum space for each scholar, the size of the school-rooms, length, breadth, height, shape, the position and arrangement of the windows, the halls and passage-ways, the staircases, the cellars, water-closets and out-houses, the garden, gymnasium, and other accessories. Instead of a dull and uniform monotony, there is a noble zeal and emulation in striving to secure the best out of various plans, and to test in each new school

house all the latest proposed reforms. The men of science, too, have contributed very largely to the knowledge that is needed to make schools healthy. Cohn, in Breslau, by examining the eyes of sixteen thousand school children, established rules that have been confirmed by Fahrner and other Swiss observers. Breiting in Basle, Tugschmidt in Zurich, and a long list of others, have carried the investigations of school hygiene to very great nicety. School furniture has always been a matter of special American pride. Barnard's book, published as far back as 1854, first showed what had been done here, and gave the impetus to fresh improvements. But while we have been multiplying our patents and cheapening and increasing our comfortable desks and chairs, and making more sightly all our school appliances, the foreign investigators have gone to work to point out how much need of reform there is in the shape and form of much of the present school furniture, in order to make it really wholesome and safe to use, so as to preserve the health of pupils. Gutenberg and Virchow, Frey and Passavant, opened up the discussion, and it has been continued both by single observers and by a number of conferences of teachers held in successive years in various cities. Zurich and Leipsic are the headquarters of an active and constant progress, which is gradually spreading and bringing home to all school authorities the true philosophical and hygienic rules for school furniture. The system of bench and desk prescribed by Liebreich of London, and adopted by the School Board of that city, was made known here by articles in the *Ledger*, and by an exhibition of his models; but we have yet to learn that any school authorities have studied them, or suggested that manufacturers of school furniture should look to these methods of saving the health of school children.

On all the details of the various systems, models and plans, the "Report" gives full details, richly illustrated, and furnishing at hand a capital basis of comparison for the use of judges in their distribution of awards. A chapter is devoted to an account of the "kindergartens" of Germany and their growth in other countries. The subdivisions of schools are carefully set forth, and the respective claims of the various classes well-balanced. Of subjects of special instruction there is a full and elaborate account, showing how reading and writing and the other elementary branches are taught in different countries, and what special features distinguish the respective nationalities in their several methods. Geography is now receiving an unusually

large, but not undue share of attention, and the wall maps and other means of instruction are rapidly improving.

The French have sent as a juror, M. Levasseur, a member of the Institute, and a professor of the College of France, who is especially distinguished for his studies in cartography; Germany is represented by Dr. Augustus Petermann, the chief geographer of the great map-publishing house of Gotha; Switzerland long ago gave us Guyot, who has done so much to give to this country the best school maps in use here. Costa Azevedo, a Brazilian, who received a medal of honor for his maps of the Amazon, is now here in command of the frigate *Nichtheroy*. Our American arithmetics for schools earned well-deserved praise for their clearness and simplicity.

In Vienna, as in Philadelphia, although agriculture was largely represented, the means of training were but feebly presented. Wurtemberg furnished the largest and most original exhibition of agricultural education. The first agricultural school was established in that kingdom in 1818: it now counts twelve professors, with as many assistants, three hundred acres, two laboratories of chemistry, a physical cabinet, a meteorological station, special collections of woods, agriculture and horticulture, a library of five or six thousand volumes, a reading room, collections of mineralogy, botany and zoology. The native students pay fifty dollars; those born elsewhere double that sum; while the cost of living is about twenty five cents a day. There are now three other subsidiary or training schools, and there is a special school for wine culture, and there are several schools for the winter instruction of all classes of farm hands—attended in 1871-2 by twenty thousand pupils; so that there is a thorough system provided.

Drawing schools and the teaching of the art in schools have taken a sudden impulse, due to the London Exhibition of 1851; England first followed, and in turn set the example of giving industrial art education the widest possible extension. The United States have remained unmoved almost up to this time, and the Exhibition at Fairmount Park shows only such work as has been done at special schools, such as the Philadelphia School of Design for Women, or in Massachusetts under the recent energetic efforts in art training now fairly under way. Of special schools for arts and trades, for women's work, and for the education of women in various pursuits, of ap-

prentices in their particular trades, such as that of the Railroad Printing Office in Paris, and the Iron Works at Creuzot, the report gives a full description. Sunday schools were first established in Milan, by St. Charles Borromeo, in 1564, and it did not take long before Cambray, Lille, Worms and other towns, also opened schools on Sundays—not as in England and this country, for purely religious instruction, but for such partial studies as are now taught in night schools. In other countries these are not limited to merely elementary subjects; for in Holland women are taught pharmacy, book-keeping, wood and straw work, and other useful arts; in Austria, telegraphing is added to the other subjects taught in 1871-2 to nearly five thousand female pupils; while Prussia, as a sort of reward for the thorough technical instruction freely given, now opens its telegraph, post-office and railroads, its libraries and civil service, to women.

Public libraries for popular use are now admitted to be almost a necessary supplement to any good system of education. France had five thousand libraries with 180,000 volumes in 1865. In 1875 it had 15,000 libraries and a million and a half of books. Switzerland has effected the same result without government aid, and its 1734 libraries, with a million of volumes, supply an average of forty volumes to every hundred inhabitants. Belgium has five associations maintained by workingmen, with libraries, schools, popular, literary and scientific lecturers; and in almost all other European countries, such associations have had a much more wholesome influence than those established by private munificence. The great question to be asked and taught by an Exhibition relate to the number of children receiving public education, the number of schools, classes and teachers, the cost per head, the attendance; in short, the quantity and quality of instruction, the sacrifice made to secure it, and the results. The National Bureau of Education is almost the only authority for statistics on these subjects for a whole nation. In the main, the great cities give their own details, each for itself, and there is a great need of a uniform system to show at a glance the results. M. Levasseur drew up a table showing the average school attendance to the whole population; but even this, with all his skill and care, is only approximate. To make an exhibition a satisfactory test of the existing education of the nations here represented, there must be a full and complete interchange of views, and a plan of statistics on a common basis.

J. G. R.

NEW BOOKS.

SOLAR INVESTIGATIONS, 1875. By Captain John Ericsson, LL. D.
CONTRIBUTIONS TO THE CENTENNIAL EXHIBITION. By Captain
John Ericsson, LL. D.

It is matter for regret, having regard to the true purpose of the Centennial Exposition—namely, the celebration of a nation's hundredth year by bringing together in international rivalry the results of a century of progress—that Captain John Ericsson, the designer of the Ericsson calorific ship, and of the monitor turret system of naval construction and armament, was not invited, with other leading scientists, to show what advances science has practically made. Captain Ericsson, however, instead of uselessly complaining, tells us what he could for himself have shown, and describes his discoveries and inventions in a couple of privately-printed monographs, entitled *Solar Investigations, 1875*, and *Contributions to the Centennial Exhibition*. The first of these works is sufficiently novel in the matter of which it treats to be briefly and carefully reduced into the language of the people. The great engineer has not forgotten his old love, the calorific engine; but on the other hand, believes that the future exhaustion of the coal measures will render it of practically universal utility, since it will need only the sun-power now wasted on rainless lands to set it in operation for the benefit of mankind, in lieu of the already increasingly costly element of steam produced by the burning of fuel.

But with an intuition of what may be a century hence, he seeks to gauge the thermal energy transmitted to the earth by the sun's rays; and this he effects by apparatus of an unique character. He takes a telescopic tube, devoid of lenses, etc., mounts it equatorially, and closes both ends with metallic plates or diaphragms. Then he cuts three circular apertures in each of these diaphragms; two of the three correspond in diameter; the third differs, and is, moreover, placed on one or the other side of the vertical line.

Plates being concentrically inserted in two of the apertures of the upper diaphragm, he gets observations of the rays transmitted by the whole area of the sun's disc, by a narrow zone on the border of the disc, and by the centre of the disc; which rays, forming a hollow cone, pass through the corresponding apertures of the lower diaphragm, and are measured as to their relative intensity by actinometers—of Ericsson's contrivance—placed beneath.

The recorded results are curiously interesting, and seem to set at rest the dubious speculations of Laplace, Secchi, and other astronomers of that school; and they support the notions of the photosphere propounded by Norman Lockyer. As to the commercial aspects of these investigations, those, too, are of vast importance, if it be

correct, as the author states, that the scorched plains bordering the Nile and the Red Sea have heat enough pouring from the blazing sun during nine hours daily, to keep in constant working the mills of a hundred such cities as Manchester. One might almost assume that it was intended by Providence and the engineer thus to vindicate the wisdom of the Derby-Disraeli policy, of gaining an alternative resort midway between the British Isles and India, where the dream of an Oriental empire might be realized in the very cradleland of civilization, by the hardy sons of the vigorous North-West of Europe.

A FAMILY TREE: By Albany de Fonblanque.

This story is unusual in respect of form, as two hundred and fifty years intervene between the first and second parts. The first part contains the roots, the second the fruits of the family tree of the Desmonds; and, though the interest is well sustained through the whole, the power of the tale is in the first part. In it we are taken back to the day when James I. was King, and men's belief in witches more sincere than the author would have us think when he says: "There were many official witch-finders, and, consequently, no lack of witches. People must live!" When we read of a too accomplished horse tried and executed for sorcery at Lisbon in 1601, we see the absurdity of this witch-mania, and perhaps forget the terror with which it overspread Europe for four hundred years. From 1484, when armed with the *Malleus Maleficarum*, the official witch-finders of Innocent VIII. began their work in Germany, down to the last judicial execution for witchcraft, which took place in the grand duchy of Posen in 1793, the records are appalling. In Geneva five hundred were burned in three months. Under the Long Parliament three thousand were condemned. James I. and his bride having been tempest-tossed on their voyage from Denmark, investigations were made which resulted in the execution of thirty persons for having, by sorcery, raised the elements against the King. In 1716 Mistress Hicks and daughter, aged nine, were hanged in England "for selling their souls to the devil, and raising a storm by pulling off their stockings and making a lather of soap." One cannot think so ill of human nature as to believe these things possible among men who had not a sincere belief in the existence of the evil they sought to exterminate. Envy and malice certainly may have prompted individual prosecutions, but the mass of mankind are not moved to spontaneous action by such feelings. In a day when the weight and talent of both church and bar were thrown against these unfortunates, it is grateful to remember a little book of Reginald Scot, which he wrote "Anno 1584, for the protection of poor and ignorant people, frequently taken, arraigned, condemned and executed for witches, when, according to a right understanding and

a good conscience, Physick, Food and Necessaries should be administered."¹ How far above the general understanding these generous sentiments were Mr. de Fonblanque shows us in Part I.; while in Part II. all the troubles are set straight by the hereditary fidelity of the Denys family, who hold in sacred trust the estate for the heirs of a Desmond, whose son is stolen in the earlier history. The good deeds of these men live after them, their unwavering loyalty is rewarded by the discovery of the heirs, and the telling of the story leaves a pleasant memory.

BOOKS RECEIVED.

History of Europe. By E. A. Freeman, D. C. L., LL. D. *History Primers*. (Edited by J. R. Green.) 18mo., cloth, pp. 150. With maps. New York: D. Appleton & Co. [Porter & Coates.]

The Five Senses of Man. By Julius Bernstein. *International Scientific Series*. 12mo., cloth, pp. 322. Illustrated. New York: D. Appleton & Co. [Porter & Coates.]

Goethe's Prose. Edited by James Morgan Hart. *German Classics*, No. 3. 16mo., cloth. \$1.00. Pp. 199. New York: G. P. Putnam's Sons. [Porter & Coates.]

My Own Child. By Florence Marryatt. 8vo. Paper, 75 cents. Pp. 181. New York: D. Appleton & Co. [Porter & Coates.]

Ivanhoe, a romance. By Sir Walter Scott, Bart. Condensed by Rossiter Johnson. *Condensed Classics*. 18mo., cloth. \$1.00. Pp. 291. New York: Henry Holt & Co. [Porter & Coates.]

Fifty Years of My Life. By George Thomas, Earl of Albemarle. 12mo., cloth. \$2.50. Pp. 430. New York: Henry Holt & Co. [Porter & Coates.]

Theory of Social Organization. By Charles Fourier. With an introduction by Albert Brisbane. *Sociological Series*, No. 2. 12mo., cloth. \$1.50. Pp. 288. New York: C. P. Somerby. [Claxton, Remsen and Haffelfinger.]

The Ethics of Benedict de Spinoza. From the Latin. With an introductory sketch of his life and writings. 8vo., cloth. \$3.00. Pp. 376. New York: D. Van Nostrand. [J. B. Lippincott & Co.]

¹ And it is to the honor of the Jesuit order that their genial poet Frederick Spee published in 1632 his *Cautio Criminalis, sive de Processibus contra Sagas Liber*. His contemporary, the Calvinistic lawyer Johann Althusen, opposed the superstition in his writings, and was also ahead of his times in asserting the sovereignty of the people. Later opponents of this judicial superstition are John Webster, a theologian of the school of Sir Harry Vane and a chaplain in the Long Parliament's army, who practiced medicine in Lancashire after the Restoration; and then Dr. Francis Hutcheson, the Scotchman who rediscovered the existence of a moral sense or conscience in mankind.—ED.

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THE Eastern complication is approaching what we are sorry to regard as the only desirable solution, viz., the invasion of Turkey by Russia, and the involving Eastern Europe in a great conflict between the Mohammedan and the Christian. The Russian is not the sort of government we especially admire ; and while we readily understand, we by no means share the sympathy which many Americans entertain for it. We regard it as a despotism, whose power retards the political development of a great cluster of nations, and especially as a despotism which alone, of all monarchical despotisms, has avowed sympathies with that despotism of the many, that negation of all freedom and individuality—communism. The extension of the Czar's empire to the Bosphorus and beyond it, the conversion of the Black sea into a Russian lake, and the extinction of the partial independence of the Danubian provinces and their Russification, we regard as little less than disasters to Europe at large. But since the rest of the Great Powers have failed to do their duty to Christendom and to humanity, Russia has fairly earned her great opportunity to gain the long-coveted site of empire, the New Rome of eastern Christendom. One more step is thus made to execute the *Testament* of Peter the Great, and to secure, to what is intellectually the least cultivated and politically the least advanced of the great European races, the initiative in the continent's politics.

The diplomatic discussion of the situation among the Great Powers seems to be degenerating into a vigorous scolding-match between

England and Russia, if the utterances of the semi-official newspapers be any guide as to its drift. Especially pathetic is the English appeal to Germany, as the government which holds the balance of power, and can bring everything right if it will. "Thank you for the compliment," is Germany's answer in substance; "I believe I am big and strong enough to whip you, or Russia either. But then, as your Premier puts it, each nation's chief duty is to look after its own interests. So before I interfere, I'll know what it is for." An answer which does not at all rejoice France—France hoping for a general scrimmage in which she and Austria might have Russia's help to wipe out some not very old scores. On the other hand, it seems that Turkey's two heirs apparent, Austria and Russia, have come or are rapidly coming to an understanding on the subject. The latter has made a proposal for joint invasion, Austria to take charge of Bosnia and Herzegovina, and Russia to occupy Bulgaria; and Austria seems to be coquetting with it. She would not long hesitate, if she only knew that Bismarck had no objections, and she could keep the Hungarians from revolting against new additions of Slavonic territory to the dual Empire. But she will not agree to the construction of new Slavonic states. Italy is another friend whom Russia must keep in good humor. She wants the control of Mediterranean commerce, and does not like to see so much of it pass under Russian control. So she makes a public announcement to Europe as to what a fine large army she has—"just to please our people, you know; it has cost them a pretty penny." And then she hints that if Russia must have the Euxine, she in all fairness might very well get Tunis and the Italian Tyrol. And so on all sides the solution that English policy has striven to avoid or put off seems to be growing every day nearer and more certain.

IN the actual theatre of the struggle, no event of military importance has occurred since the expiry of the truce. Neither against the Servians nor the Montenegrins have the Turks made any further headway. The best military movement of the Turks has been their proposal for a six months' truce, keeping everything *in statu quo*. They have everything to gain by such a proposal. The indignation of the Christian nations would grow cool by that time; the good services of England and the general dislike of war would help to a solution more favorable to them than any as yet proposed. And

the Servians could not by any possibility keep up their army through the winter. Therefore those gentle lambs, the Pashas, are eager for a good long cessation of hostilities. But as Serbia is astute enough to refuse even to consider such a proposal, and as Russia has no intention to urge it on her, this fine diplomatic move has failed, except as it enables the Turkish party in European diplomacy unjustly to throw upon Serbia the blame of protracting the struggle.

The Pashas have shown themselves not so good at diplomacy as at fighting, because of the limitations of their moral understanding. As they do not share the moral convictions and standards of other European nations, they of course could not foresee the vast injury they were to inflict upon themselves by their wholesale atrocities in Bulgaria and elsewhere. But so far as they do understand the public opinion of Europe, they do, with some help from their English mentors, know how to address their policy to the demands of that opinion. And it is not to be forgotten that during the present war the Turks have displayed no ordinary ability as soldiers. Russia will have no easy access to Constantinople; for never since the first conversion of the Ottoman race, perhaps never since the times of the early Caliphs, was the enthusiasm of the Mohammedan nations for their creed so powerful as at present. The great religious, *i. e.* military revival which has been going on over nearly all Asia, will make itself felt in the coming struggle, if there is to be one. The Asiatic recklessness of life will be raised to its highest potency by the religious conviction that death for Islam ensures immediate entrance on the most exalted joys of paradise. And the Christian populations still under Turkish rule will suffer most dreadfully. The alternative of circumcision or the sword will probably be the only choice left them. For the evil spirit will not be cast out without prostrating and rending its victim in going. Already the *softas* who rule the populace of Stamboul are threatening to raise the green flag of the *Jihad*, or crescentade.

THE wide-spread agitation which has been convulsing England with regard to the Eastern policy of the Tory ministry, culminated in a deputation from a monster meeting in London, which sent up to the Government a deputation headed by the Lord Mayor. The Premier evaded meeting them; but Lord Derby, who is Secretary

for Foreign Affairs, heard what they had to say, and made a reply which is of importance as indicating exactly how far official England may be expected to go in compliance with the express wishes of real England. He was equally opposed to non-intervention and to forcible intervention; to the latter on the ground that no power, not even Russia, would give help, while one would be actively hostile. Nor could he see his way to demanding any sort of political autonomy for the three provinces; nothing could be secured from the Porte but some sort or degree of local self-government, whose guarantees he confessed it would be difficult, if not impossible, to enforce.

It is not to be wondered at that the Deputation voted that these explanations were unsatisfactory, and the agitation must go on. It has brought Mr. Gladstone more and more to the front as the true leader of the English people, and is helping all classes to discern the difference between him and the political mountebank into whose hands they have given themselves. His refusal to treat the matter as a mere party question, beginning with his request that men of all parties be asked to hear his great speech at Blackheath to the people of Greenwich, has given tone to the whole agitation. Speaking for the Liberals to the Ministry, he says: "We are willing and desirous that there should be no change of Government, if you will do your duty. But we cannot stand the continuance of your policy on this question. We don't want you to go to the wall and to the winds. But if you will not change that policy, to the wall and to the winds you must go." The premier's only response to all this protesting, is a candid avowal that he does not agree with the nation, and does not mean to do the nation's bidding in this matter, to which he adds much coarse personal abuse of Gladstone and other Liberal leaders, whom he actually describes as "worse than the authors of the Bulgarian atrocities." In any other mouth such language would be monstrous and unpardonable; but it must be remembered that the ex-novelist has given us no reason to believe that he holds the authors of those atrocities in any especial abhorrence, or has had his sympathies more excited by the sufferings of their victims, than—as John Bright puts it—they would have been on his hearing of "a sudden massacre of the dogs that prowl the streets of Constantinople." In N. P. Willis's *Pencilings by the Way* (London, 1835,) he tells of hearing from the lips of young Disraeli

a description of "an impalement he had seen in upper Egypt," and says that "the circumstantiality of the account was equally horrible and amusing," and it seems that this "amusing" method of disposing of prisoners is that now affected by the Turks on Servian territory. Several independent and unimpeachable authorities assure us of the fact, and it seems that even women near their confinement have been among the victims.

THE British Association's Section of Anthropology was the scene of a somewhat exciting discussion, which illustrates the curious unwillingness of most scientific men to even listen to the evidence of what is unusual and inexplicable in the action of the human mind. Prof. Barrett, a young physicist, trained under the eye of Prof. Tyndall, read a paper stating some curious experiences and experiments of his own in regard to clairvoyance and what is called spirit-rapping. There was nothing new in the paper—nothing in its inferences which had not been pointed out long ago by Count Agenor de Gasparin in his *Science and Spiritualism*, a book written to refute the pretences of our spirit-mongers by one who possessed all their exceptional powers, and who was able to surpass their wonders by his own, as Moses surpassed the magicians of Egypt. The chief significance of the paper was that it was the testimony of a man whose powers of scientific observation had been carefully trained. It contained none of the inexplicable but "fishy" stories told, none of the rash inferences drawn, by Mr. Crookes and Mr. Wallace, both eminent men of science, but believers in spiritualism. It simply said, "There is something in these strange performances, I am convinced." But Dr. Carpenter and some others treated the writer and his paper with lofty disdain, refusing even to take into consideration any evidence on the subject, unless all these things could be repeated before a full section of the British Association. Whether he will do the same with the reports of the Transit of Venus, when they are completed, remains to be seen.

Science has been laboring for a long time to disprove and obliterate all the lines which are supposed to run through the natural universe, declaring all such demarcations to be mere conventional horizons, devoid of scientific or objective truth. But Dr. Carpenter and most of his brethren refuse to hear anything in disproof of the validity of the lines which are conventionally supposed to circumscribe human perceptions and volitions. The facts presented by

Prof. Barrett, and the residuum of fact in the reports of Messrs. Crookes and Wallace affect those lines, and nothing more.

THE dust of the political conflict in the West has cleared away, and discloses to us as the result a drawn battle. The October elections in Ohio and Indiana have not decided how the November election will go. Had the Republicans carried both States, they could have done without New York; but since the Democrats have carried Indiana, and will probably do it again in November, all now hangs upon the vote of New York. If Mr. Tilden's own State supports him as Ohio has supported Mr. Hayes, then his election seems certain. As the *Tribune* says, in an outburst of candor, "There is a good deal of bluster on the surface, but both sides realize that it is an uncomfortably clear case of nip and tuck."

On the other hand the Western elections do seem to indicate revival of popular confidence in the Republican party, or at least a popular conviction that with all its faults it is not the worse of the two. In each of the two States the Republicans have won back four Congressmen from the Democrats, and if a similar change takes place in other northern States, the Democratic control of the House will end with the present Congress. The experiment of electing a Democratic House by the votes of dissatisfied Republicans, to keep a Republican Senate in check, has not been a success.

The Indiana defeat is ascribed by some Republican papers to the loss of the votes of those who supported the Greenback candidates, as they are called. Up to the October elections it was confidently pronounced that the two parties were equally represented in that camp, although every prominent man who supports the Cooper and Cary ticket comes from the Republican party, while the most decided Soft Money men in the Democratic ranks have made their wry faces quietly, and are supporting Mr. Tilden. The organization of a third party, in the manner adopted, was a great mistake; but it was a very natural proceeding on the part of those who had been treated with such contemptuous abuse as has been heaped upon the believers in Soft Money by every prominent organ of the Republican party. It is but natural that men should not care to remain in affiliation with a party which can find no epithets too coarse to throw at them, and which politely offers them the dilemma that they are either moon-struck fools or arrant knaves. We think it probable that before the present election is over some Republican editors

will make the discovery that a man may believe in confining the power to issue paper to the national Treasury without being either a thief or a repudiationist—or, worse than either, an inflationist; and that a belief in a reconvertible bond as the best instrument for funding our superfluous currency does not prove that he who entertains it is *non compos mentis*. This change of mind is especially probable in view of the display of the strength of the third party made in its State Convention at Albany. Probably it is relatively strongest in Indiana, where the Greenback candidate for State Treasurer received over 16,000 votes; but the coming election in the Empire State will be one in which neither party can afford to throw away votes, and almost every vote for Messrs. Cooper and Cary is a Republican vote thrown away.

THE Democrats, as was expected, have carried Georgia and West Virginia, the former by a very large, the latter by the usual majority. The smallness of the Republican vote in Georgia is ascribed by many of the Republican papers to terrorism exercised upon the voters and frauds in counting the votes. The much more probable solution is that the Republican party of that State is wholly disheartened and disorganized, and, in the absence of any prospect of success or of any incitement from the North, has made no effort to poll its whole vote. It had nothing to gain by taking any trouble, and its opponents had as little to gain and much to lose by any act that could be used against them. Terrorism or fraud on the part of the Georgia Democrats would be too gratuitous.

The real surprise of the campaign has been the Republican majority in Colorado. This new State while it was a Territory last year went Democratic; but at this, its first State election, it has given the Republicans two Senators and a member of the House, and also its three electoral votes, as the Legislature chooses the electors. For a time the Democrats very naturally refused to believe the returns, nor have they as yet discovered any explanation of this change of party.

THE condition of affairs in South Carolina is by all trustworthy accounts a very bad one. Governor Chamberlain, who it must be remembered was elected by a combination of the best elements of both parties, has called for the assistance of the national authorities to preserve the peace of the State. It is charged that the white

people all over the State have organized as rifle-clubs, with the view, it is alleged, of terrifying the negroes into staying away from the polls. And instead of waiting the coming of election-day, the explosive South Carolinian temper has broken out already. A series of outrages not unlike those perpetrated by the Ku-Klux bands are reported as having taken place in districts where the negroes are not likely to offer resistance. In some quarters, it is said, the negroes dare not sleep in their huts, but pass the nights in the fields and woods. In other places collisions occur between the two races, and the story is usually so reported by the telegrams as to make out the negroes unprovoked aggressors upon the rights and persons of the white minority.

This account of the condition of the State is so inherently probable and natural, that we see no ground to doubt its truth. In view of all that we know of the white people of South Carolina, their position as a State under the control of the negro element, when their less haughty neighbors of their own race have secured the control of their respective States, must be maddening to the last degree. Without shutting our eyes to the hardships of their position, and while heartily regretting the Reconstruction policy which brought it about, we cannot but regard both the Governor and the President as thoroughly in the right in using every means at their disposal to secure to the negroes every right which is theirs by the laws of the land, and to inflict condign punishment upon every transgressor of those laws. And the effect of their action upon the coming campaign should not be taken into consideration for an instant. This should not be a party question. We ought to see—as would be the case in England—every organ of both parties uniting in the demand that the negroes of South Carolina be protected; instead of the organs of one party making political capital out of Southern passions, and those of the other seeking to throw discredit upon the best-authenticated reports of these outrages. Nothing so marks the inferiority of our political morality to that of England as the smallness of the number of subjects in regard to which our newspapers and partisans of both parties act together, and their insensibility to motives which rise above those of partisan success or defeat. We seem to be drifting into the unhappy condition of France, whose parties agree in nothing but mutual hate, each being quite willing to secure its own success, if need were, by foreign aid.

THE nomination of Judge Hoar for Congress, in the Salem, Mass., District, by an irregular Republican Convention, and his acceptance of the nomination, deserve the applause of all patriotic Republicans, *i. e.*, of all who desire the honor and welfare of their country more than the success of their party. Hardly any two candidates that could be selected from the prominent men of New England stand in such marked contrast to each other on all the points that concern the difference between a good man and a bad one; while in regard to intellectual qualities they are not far from equal, but with great unlikeness. Both have abundance of the shrewd mother-wit of the Down East, the grasp of fact and reality, the readiness for emergency and the adaptability to difficult situations, which characterize the Yankee. But the intellectual qualities of a man cannot but be modified by the reactions of his moral nature. It makes some difference whether a man has spent the best years of his life in doing his duty, and seeking the truth, or in learning what sort of clap-trap will best win him verdicts and votes.

We fear from the reports, that Judge Hoar has but little chance of election. At any rate, his candidacy will help party managers to understand that there are limits to the patience of those who adhere to the party but have not sold themselves into bondage to the small men who pull its conventional wires. It is one step to the redemption of the party from the disgrace inflicted upon it when only a single member of the State Convention—Rev. James Freeman Clarke—had the courage to declare that whether Gen. Butler received the nomination for Governor or failed to receive it, he would not vote for him.

It is to be hoped that the next Presidential election will see some changes in both the law and the popular methods of choosing our chief magistrate. A direct choice by the whole body of electors instead of by the States would be a good riddance of cumbersome machinery, which now serves no use except to help to keep us from feeling ourselves a nation. An election for ten or twelve years, instead of four, would be another great gain, both in increasing the importance of the office and thus forcing the people to take more thought as to the quality of the man, and in diminishing the enormous cost in time, money and temper, of our political system.

On the other hand, the substitution of nominations by conventions

of our most eminent citizens for those by our regular party conventions, would be an improvement. If we must have nominations if there be no way of submitting the candidates to the preliminary votes of the members of each party, the nomination by the real rather than the formal representatives of the people would be preferable. As our readers know, we were not in sympathy with the Fifth Avenue Conference which met last May in New York to promote Mr. Bristow's chances of a Republican nomination. Mr. Bristow never commanded our respect or confidence, and we have been greatly confirmed in our distrust by the pretty full disclosure of his relations with his superior and his inferiors in office, which has been made since his resignation of his place in Gen. Grant's Cabinet. But we thought then, and have not ceased to think since, that that Conference missed a great opportunity in not placing Mr. Bristow in nomination for the Presidency, with a Democrat in the second place on the ticket, and with a platform on which all who regard the Civil Service as the root-mischief of our politics could have heartily united. It would then have been possible to present to the people a candidate not in affiliation with either party, and for whom they could vote without perpetuating the partisan control of the Government. Such a movement might not have succeeded the first time, but such a convention would not need the immediate success of the next election to carry out its plans. It could afford to wait for more than one election in the hope of finally economizing our resources, purifying our government, and calming our elections forever, by securing permanence in office to every office-holder outside of the Cabinet, the Military and the Diplomatic services.

But as matters now stand, we cannot see that there is much ground of hesitation for those who hold such views. On one side is an honest, straight-forward soldier, who pledges his word that he will do his utmost to carry out every feasible reform in this matter. On the other is an experienced politician, whose letter of acceptance contains *not a single pledge on this or any other point*, and who, if elected, will begin his Administration by removing from office every man of experience now in the Civil Service. To those who "belong to" either party, this may seem the most natural and proper thing for Mr. Tilden to do. Even the party opposed to him will hardly feel any real objection to conduct exactly such as they themselves would have adopted, if they had been in his place. But

to those who "belong to" no party, because they belong to truth and to their country, such conduct cannot but seem as wilful and wicked a waste of the nation's resources as any squandering of the moneys in the national treasury would be. The nation has as much right to profit by the experience of those who have spent years in her service, as she has to the duties levied in her custom houses ; and our whole system must be altered to prevent this wilful destruction of what is national property, though of an intangible sort.

THE wonderful success which has attended the Centennial Exhibition is indicated in the attendance of greater numbers than ever were brought together by any of the European Exhibitions, although each of them had a hundred millions of people within easier access than is now open to our neighbors across the Alleghanies. From Vienna to London is about as far as from Philadelphia to Indianapolis ; and if with this line a circle be described around the two Exhibition centres, the population included within the European circle will be found immensely the greater. Yet on no occasion was the number of persons collected at the Vienna *Ausstellung* at all equal to the vast number assembled at our own Exhibition. As it is a New York newspaper that says it, we of Philadelphia may fairly pride ourselves upon this great success as partly owing to the way in which the people of our city have treated their visitors. Much more of course is due to the actual merits of the display, which seem to put every visitor into the mood in which the Queen of Sheba returned from her visit to the court of Solomon. We have yet to hear of a single person who was not surprised and delighted by its vast variety, while of course it has defects of detail and of arrangement which could hardly be avoided in the first Exhibition of the sort on this continent.

Public opinion has been very greatly divided as to the wisdom of keeping the Main Building intact for a permanent exhibition ; and the Commissioners of Fairmount Park, we think, would have had the majority with them whichever way they finally decided the question. Its present site in front of Memorial Hall is, of course, very much against the proposal ; but still there is reason to rejoice that it is to be retained for a permanent exhibition for the education of the people of our city.

ON SELF-FERTILIZATION AND CROSS-FERTILIZATION
IN FLOWERS.

DURING the past year I have conducted a series of observations and experiments to throw light on the inquiry whether insects are any material aid to plants in fertilization; and the result has been to convince me of the truth of the negative reply to this question.

Insects sometimes fertilize flowers, and cross-fertilize them; but I believe these cases are less frequent than they are supposed to be, and that when they do occur, they have no bearing on the general welfare of the race. In other words, such fertilization is of no material aid to plants in the progress of the species.

The position of those who take the other side is this: All plants with brilliant colors, with fragrance, or with honeyed secretions, have these attractions for the purpose of enticing insects, which unconsciously bring pollen at the same time, and thus fertilize the flower. The proof of this is thought to lie chiefly in the fact that many plants do not perfect their stamens and pistils at the same time; are placed in relative positions in which it seems difficult, or even impossible, that they should have any influence on each other; or in some other way present apparent obstacles to sexual union. From this it is assumed, and not from any actual experiment that I am aware of, that plants abhor close breeding.

That plants abhor close breeding is an idea borrowed from a supposed experience in the higher animals. But the comparison is not fair. In the higher animals the idea of sex is essential to the perpetuity of existence; but it is not so in plants. They reproduce themselves by bulbs, tubers, suckers, offsets, buds, and, in the lowest organisms, by simple cell divisions. Propagation in plants, as an idea, is entirely independent of sex. True, many of our forest trees have none of these accessories—even the skillful horticulturist can scarcely graft some of them; and then there are annuals which depend wholly on seeds—a product of the sexes—for perpetual existence. But there is not one that I know of that a horticulturist would say *could not* be reproduced indefinitely without the aid of seed. The red Dutch currant is an individual plant which has been reproduced by cuttings long anterior to modern history; and, I

believe, the Canada thistle, couch grass, horse-radish, and numerous other plants, could be continued for countless ages by their running roots alone. Now this is as close a kind of breeding as could come through the operation of separate sexes, and for which no analogy can be drawn from any experience in the higher forms of animal life. We can see that seeds in plants favor the distribution of species, and enable them to maintain existence for a longer period than mere plants could. Sex in plants may be a factor in the evolution of form; but those who have kept pace with botanical knowledge, and are familiar with what is known as *bud variation*, will not lay much stress on the absolute necessity of sex to this end in vegetable nature. I believe I am safe in saying that there is nothing whatever known to prove that there is any physiological benefit to plant races by the establishment of the sexes. Some have thought that the varieties of apples wear out in time; but even this is being argued on both sides by the most distinguished horticulturists; and I may say that I have seen at the recent Centennial Exhibition as fine golden pippin apples, the kind used to illustrate the theory, as Mr. T. A. Knight thought were only seen in his younger days.

We must then lay aside all considerations from analogy or inference, of the benefits of cross breeding, even though we should find that all plants discarded their own pollen. There may be some other reason, quite independent of any sexual consideration; and it is because I believe there are other reasons in dioecious, monoecious, and other cases, that I take the stand I do.

We may note, in the first place, that insects visit some anemophilous plants as freely as they do the entomophilous ones. They, for instance, abound on the male flowers of the willow, especially *Salix caprea*, which have abundant honeyed secretions: but they avoid the female plants. If honeyed secretions be for the purpose of enticing insects for cross-fertilizing purposes, how is the object attained here? This single instance is enough to enable us to say decisively that honeyed secretions are not mere traps to allure insects for fertilizing purposes, for *Salix* is fertilized by the wind.

Then there is *Yucca*, of which so much has been made. In my district, *Yucca filamentosa* abounds. It opens its flowers about the 25th of June. In 1875 a plant of *Yucca angustifolia* blossomed on the 5th of June. Though closely watched, I found no *Pronubas*

about them. They produced no seed. The *Yucca filamentosa* had numbers, and seed abounded. About the 5th of June this year, the *Yucca augustifolia* again opened its flowers. On the 12th I noticed the *Pronuba* to abound, and I hoped for seed. There were from 1 to 5 in each flower. On the 19th I noticed that the flowers had almost all fallen fruitless. I then placed some pollen on four of the flowers—each had pollen from its own flower—and these produced the only seeds the plant bore. Even when fertilized at all by insects, I am sure the fertilization is from the pollen of the same flower. My experiment shows that its own pollen is acceptable to it. It is true it is difficult to understand why the plant seems unable to fertilize itself without extraneous aid; but it is clear that this is not from any abhorrence of its own pollen, or from an especial desire for insect aid, especially the aid of an insect whose chief mission seems to be to prey on the fertilized seed!

The chief arguments for the necessity for insect fertilization are drawn from structure, and not from facts of observation. For instance, we are told that *Iris*, *Campanula*, Dandelion, Oxeye-daisy, the Garden Pea, *Lobelia*, Clover, and many others, are so arranged that they cannot fertilize themselves without insect aid. I have enclosed flowers of all these named, in fine gauze bags, and they produced seeds just as well as those exposed. I was somewhat surprised that the two first, *Iris Virginica* and *Campanula*, should produce seeds under these circumstances, as they are common illustrations of the supposed necessity of insect fertilization.

In short, in all the cases that I have tested in this way, seeds were produced as well under the gauze as outside, except in one instance; *Baptisia Australis*. In most Papilionaceous plants that I have examined, in spite of the suggestions of my friends, I thought the arrangements favored self-fertilization,—not only by the position of the organs, but from the fact that the moment anything touched the flower, so as to liberate the pistil or stamens, a quantity of pollen floated all around like a little cloud,—a disposition of the pollen which, by the way, in view of prevailing theories, the class of flowers with “fragrance, color, or honeyed secretions,” ought not to make. *Genista Scoparia* will give an excellent illustration of this. But in *Baptisia* I did not notice this little cloud, and it did seem that in the actual act of collecting honey, the humble-bee’s abdomen, covered with pollen, pressed itself closely down on the stigma.

I covered a spike of a dozen unopened flowers with a gauze bag, and had only one seed vessel, though in the exposed spikes nearly every one perfected. This fact may go for what it is worth; for, be it remembered, I do not deny that flowers are sometimes fertilized by the aid of insects. It is with the extent of this fertilization, and the theories to be deduced from it, that I have to deal.

Independently of trials by bags, I have experimented with single flowers of some species. I take plants of which there are no others in the vicinity, and pick off all but a solitary flower, not permitting another to open until this has faded; therefore, if this flower seeds, it must be only by its own pollen. I was led to try this from noting that a few first flowers of *Enothera serrata*, which open about noon and die in a few hours, seeded when I was almost sure no insect had visited them. In watching for this purpose *Talinum teretifolium*, I found that it opened always a few minutes before one p. m., began closing at three, and by half-past three had wholly closed. No insect visited it in that time; but every flower seeded, as did subsequent experiments with single flowers. An ally, the common purslane, I believe remains expanded a less time, and is I think an undoubted self-fertilizer; and yet on what theory of the advantages of cross-fertilizing could a plant make better headway through the world?

It is of course well known that some flowers open and close at almost all hours of the day and night, many remaining open but a very short time. Can this varying and limited time have anything to do with insect fertilization? Would not fertilization by insect aid be more certain if at least a whole day were given for the chance? In my district the little florets of the common chicory are all fertilized before eight o'clock, and by nine have faded away. This species is an excellent one for noting how self-fertilization is effected in composite plants, as the pistils are blue, and the pure white pollen is easily seen. Soon after daylight the corolla lengthens. After a little while it rests, but the stamens and pistil go on. After a while the stamens cease, but the pistil continues to lengthen, carrying an immense quantity of pollen with it. Here is the difficulty which those who differ from me experience. The pistil has to cleave, and only on the interior of the clefts seems to be the stigmatic surface; the pollen then must be—*must* be, it is said—only on the exterior where it cannot operate. But if any one will get up early and spend a couple of hours in watching the development of the flower,

driving away an occasional sand-wasp that would like to gather the pollen, he will find that there is not a cloven pistil that has not some pollen on the interior stigmatic surfaces. Of what avail are "must be's" against positive facts like these? But if he watch closely he will see that the pollen falls into the chasm made by the opening stigmas. In the language of my friends it is a "beautiful arrangement" for insuring self-fertilization. If, further, we allow the sand-wasps to work at pollen-gathering, we find that while clearing the pistils of pollen they push quantities into the clefts, and are therefore agents in self-fertilization, instead of the reverse. I have observed the same in Dandelion and the Oxeye Daisy (*Chrysanthemum leucanthemum*) as well; and am sure that thousands flower and perfect seeds that no insect visits. I am *not* sure that the idea that pollen must always enter at the apex of a stigma or nowhere, in order to effect fertilization, is correct. In *Cirsium* (*C. Pitcheri*) and many others of that section, what in others is a bifid stigma is almost entire, the stigmatic surfaces being almost or probably in some cases wholly united together. *Cirsium Pitcheri* has very long pistils. The honey-bee seems very fond of the flowers; it works between the pistils. I have never detected a grain of pollen on the almost entire apex, though the sides are covered as in other composites. But it seeds abundantly.

I think the peculiar closings of flowers might be said to be as much designs for effecting self-fertilization, as for anything else. It does effect it in *Ranunculus*, *Claytonia*, and most likely in the *Iris* enclosed in the gauze bag; and perhaps in many plants with flowers that close and twist up in fading. In *Ranunculus*, on the first day's opening of the flower, the outer of the numerous rows of pistils throw their pollen on the glazed petals. These close at night, and the pollen is dropped in over the hollow in which is the mass of perfect pistils (I refer to *R. bulbosus*). In *Claytonia* (*C. Virginica*) the same thing occurs with the early flowers, so far as drawing the stamens up to the pistils is concerned. In the later flowers the anthers recurve more, and in the closing at night are drawn under the pistils, and hence we find seed in these plants only from the earliest blossoms. These illustrations are not uncommon. Even in wind-fertilizing flowers, the times of opening and closing of certain parts of the flowers may be worth a study. I find *Luzula campestris*—the wood form—bursts its anthers about 9 o'clock a. m. By ten the pollen is committed

to the atmosphere. As its own pistil has dried up by this time, having expanded two days before, it cannot fertilize itself. There is no evidence that it would not be just as well if it could. This precision and uniformity as to time show that there are other considerations involved in the acts connected with fertilization, besides those usually suspected. This brings us to the question of Dichogamy as an agent.

Much stress is laid on the fact that in many flowers the pistil is mature before or after the stamens, and this is interpreted as an especial arrangement for cross fertilization. I pointed out some time ago that this difference in time varied with the season in many species. But the difference is striking in some closely allied species. *Barbarea praecox* and *B. vulgaris*, two cruciferous plants, are so nearly related that the difference can scarcely be defined. The former, however, has its pistil of about equal length with the stamens—all included in the petals. The stigma certainly receives its own pollen simultaneously with the expansion of the petals. But in *B. vulgaris*, the pistil protrudes beyond the closed petal, and in perfect condition to be fertilized by extraneous pollen before it can be served by its own. But both species make their way equally well through the world, and I think no better illustration could be offered of the fact that a dichogamous plant has no advantage in the struggle for life. This fact may, however, be illustrated in various ways. Supposing the *Iris* could not self-fertilize. Its next of kin, *Sisyrinchium*, is certainly a self-fertilizer; and who will say that it has not made its way proudly? *Iris Virginica* is comparatively local, but any student can get a specimen of *Sisyrinchium Bermudianum* at a few hours notice. You can find flowers which seem to forbid self-fertilization, it is true; but let us not close our eyes to those so constructed as to render insect aid impossible. There are some *Scrophulariacous* plants which have the pistil arranged above the stamens, so as to seem placed there in order that a visiting insect may rub its pollen-covered back against it on entering; but many *Pentstemons* (*P. grandiflorus*, *P. Cobaea*,) incline the pistil downwards, making any such insect fertilization very difficult, yet every flower perfects seeds. *Browallia* (*B. elata*), has a hairy cap over the stamens, and an insect would only aid in self-fertilization. But *Browallia* is not visited by insects, yet seeds abundantly. It might be argued, this is because it

has no fragrance ; but there are some garden *Verbenas* which have fragrance as well as color. No insect visits them on my grounds, so far as I can discover, but both kinds seed equally well.

In fact this idea that color and fragrance are necessary to attract insects—are given to plants for that purpose—receives a great blow from the fact that flowers with neither are thronged with insect patrons. Many species of *Rhus* are illustrations. But I have taken especial pains to note *Rubus occidentalis*, our native black-cap raspberry. It has not the faintest trace of odor. Its small, greenish-white petals are so inconspicuous that it might as well be apetalous. But nothing can exceed the fondness of the honey-bee for it. It abounds in my vicinity, and from sunrise till far into the twilight of evening the honey-bees crowd on it. They neglect every other flower, even white clover, as long as it lasts. Surely there should be a necessity for insect fertilization in cases where insects are so assiduous ! I have had this point suggested to me. Is it not a surprise, then, that although a gauze-bag was thrown over a cluster of flowers, yet a perfect fruit resulted to every blossom—as was the case with all the neglected clover flowers as well ? As to clover flowers, so great is the faith in the necessity for insect fertilization, that humble-bees have been sent from England to New Zealand to help the clover along. But since last season, I have discovered that our humble-bees do not enter the mouth of the red clover—care nothing for the elaborate arrangements for cross-fertilization—but slit the tube and get at the honey from the outside ! And yet the clover seeds abundantly ; and, so far as I could see, every flower in the field where I saw the bees behaving so outrageously, bore its seed. Many flowers are served in this way ; and unless one looks closely, he may be deceived. In the Persian lilac, if we follow the course of our friends of the insect-fertilization school, we see the stamens arranged above the pistil, and, as the pollen bursts simultaneously with the opening of the corolla, it ought to fall on the pistil, and the entrance of an insect would only aid this self-fertilization. But, with us, it never yields a solitary seed, and we may be asked to “behold the results of self-fertilization.” But we see exactly the same arrangement in the common lilac, and that seeds abundantly. In both cases the humble-bee slits the tube, and the honey bee either follows in the slits made by its stronger friends, or else makes slits for itself, a point I have been unable positively to determine.

Indeed, one of the points I wish to insist on most strongly is, that the facts in this question have been but imperfectly observed, and then erroneously construed; and of this I will offer but one more illustration. It relates to dimorphous flowers, those with the pistils long in some flowers and short in others, as in *Epigaea*, *Mitchella*, *Houstonia*, and others. When we look at the allies of these plants, we notice that this behaviour is exceptional. It may be assumed that they have wandered from a condition where the separate sexual organs were nearer to a perfectly hermaphrodite character, and it is assumed that this wandering is in order to derive some benefit from cross-fertilization through insect agency. I have endeavored to test this assumption in *Houstonia coerulea*. I selected a number of plants of both forms, and marked them when in flower. In some clusters, aggregating about fifty flowers of the short-styled plants, and which I have no doubt were self-fertilized, *forty-two* perfected seed; but of fifty with long styles, and which would necessarily have more difficulty of availing themselves of their own pollen, only five matured seed. Thus we see that the self-fertilizer has at least the advantage of numbers; and in a battle for life, or for any purpose at all, that is surely an advantage of no mean importance.

I believe I have shown that the facts are not wholly as they have been represented; and that even when they may exist as represented, they do not justify the deductions sought to be drawn from them.

Hasty generalizations as to the purposes of nature are dangerous. If, for instance, we examine swampy places, we find magnolias, willows, white cedars, red maples, cypresses and numerous others growing therein. We at once conclude that they grow there because they prefer the wet to the dryer land. But a wider acquaintance with these trees will show that all of them do better when, as we often find them, growing in dryer places. A suspicion then arises that there is something wrong with our reasoning, and we find at last that nature has a deeper purpose than merely an individual regard for these trees. Their seeds will only grow in wet soil; and of necessity, and not for individual benefit, have these trees to remain there. Again, I think there is nothing more certain than that effects will continue long after the causes which produced them have ceased to exist; so that actions which you see, may be associated with degradation instead of evolution—may be the last flickerings of

a dying light, and not an aurora indicating the birth of a new day. As to the present question, our reason will tell us that the phenomena we see may bear this interpretation as well as that given to them by the advocates of insect fertilization. In Europe, for instance, the common strawberry is almost universally hermaphrodite; but in this country the tendency to dioecism is well known. We know also that those parts of the world in which dioecism prevails are not as favorable to the existence of the strawberry as the others; and we may safely conclude that dioecism—a form of dimorphism—has no relation to any advantage to be derived through the sexes, but is an actual result of degrading conditions.

Then, physiologically, what good can result from cross-fertilization? It is asserted that probably most of the large order of composites are cross-fertilized, the flower in one head receiving the pollen of another flower in the same head by the aid of insects. This is contended from examination of the structure. After noting the behaviour of the parts, and in the absence of insects, I contend these plants are self-fertilizers. But admitting all that is claimed for them, compare one with an ordinary polypetalous flower, say *Ranunculus*—and where is the gain? The floral parts are all on the same common peduncle in both cases, and the stamens and pistils are as widely—nay, more widely—separated in a *Ranunculus* than in a dandelion. Practically, there is a wider separation of the sexes in the *Ranunculus* than in the dandelion, granting even all that or more than is asked for cross-fertilization in composites.

Physiological disturbances that aid the vital principle in the pistils, and interfere with that of the stamens, of course weaken the vital power of the pollen. In such cases, foreign pollen—pollen from flowers free from these disturbances, or where the disturbance favors the stamens instead of the pistil—would have more potency. It is, therefore, not surprising that some cases should offer, proving foreign pollen more potent than own pollen. It would be more surprising if there were none, for in every direction we find nature with overflowing abundance pushing beyond what we regard as the necessary mark. As the boy who, to jump across the stream, first goes back, and when he lands on the other side, goes farther than he wants to; so does nature in all things, or I have not read her story right.

I cannot refer in a brief paper like this to more than a few of the

observations I have made, nor do I think it necessary. I submit these propositions :

1. That cross-fertilization by insect agency does not exist nearly to the extent claimed for it.
2. Where it does exist, there is no evidence that it is of any material benefit to the race, but to the contrary.
3. Difficulties in self-fertilization result from physiological disturbances that have no relation to the general welfare of plants as species.

THOMAS MEEHAN.

THE POETRY OF THE PICTOR IGNOTUS.¹

THE readers of Henry Crabbe Robinson's *Diary* will not easily forget the strange fragments of conversation he records as displaying the character and the thoughts of his artist friend, William Blake. And those who have the good fortune to own, or even to have looked into Gilchrist's *Life of Blake*, will carry away from that book and its weird illustrations impressions they would not gladly lose—impressions of the simple, pure-hearted, inspired child of genius, who beat about a prosaic world like a seraph that had lost its way, and then died misunderstood and slightly cared for. The *pictor ignotus*, as he loved to call himself, was the most un-English of Englishmen. More even than Milton, he reveals possibilities in the English character that no one had ever dreamed of. In one of his "Proverbs of Hell" he says, "The fool sees not the same tree that a wise man sees;" and certainly he saw nothing with the same eyes that his contemporaries did. His measures of magnitude and of weight were so utterly different from theirs—so different, though perhaps in a less degree, even from ours! His piety and his seeming impieties, his ability and his limitations, were both as far as the poles from anything of the same sort to be found in England at the close of the eighteenth century. Only Hamann of Koenigsberg, or Blake's friend Flaxman, or Flaxman's master Swendenborg, comes into any sort of comparison with him. He reminds

¹ THE POETICAL WORKS OF WILLIAM BLAKE, LYRICAL AND MISCELLANEOUS. Edited with a Prefatory Memoir by William Michael Rosetti. Pp. cxxxiii, 231. 12mo. Boston: Roberts Brothers.

you now of Böhme, by his visionary audacity; now of Gœthe, by the astuteness of his insight; but he is always himself, and every stroke of his burin or of his pen conveys with it a subtle but unmistakable flavor of the man and his thought. Men have called him insane; even his latest editor thinks "there was something in his mind not exactly sane." But this notion arises from the fact that he possessed the highest and most exalted powers of the mind, but not the lower. He could fly, but he could not walk; he had genius and inspiration, without the prosaic balance-wheel of common sense. Hence his defects of utterance to our ears; he is incoherent in his effort to make known to us what he sees, for very slight and imperfect is his acquaintance with our daily speech, and with the everyday, commonplace thought it represents; and for this reason much of his best power has been wasted, so far as any access to the general mind is a test of success. The artist, the poet, the thinker, the man of high culture, delight in his work, both literary and artistic; but only the unprejudiced, the open-minded and the patient among readers in general will value him at his true worth.

Blake died in 1827 in his seventieth year. He had studied engraving under Basire, and followed it as a profession throughout life; but he also painted in water colors. At the age of sixteen, he began his public career as a producer of engravings, and already betrayed the bent of his mind by praise of Gothic art and of the Middle Ages, a thing unheard-of at a time when men of such refined sensibility as Goldsmith possessed, saw nothing in York Minster but a pile of barbarous rudeness. He lived scantily and hardly. Among artists, he contracted a capricious friendship for Stothard, Flaxman, Fuseli; but he detested Reynolds and the other magnates of the R. A., only less fiercely than Raphael, Rubens and Titian. In his twenty-sixth year he married a wife of so little education that she had to make her mark in the parish register; but she believed in him, grew in mind under his influence, and became the best possible help to him. Both believed that his pictures were what, to the eye that sees them for the first time, they confessedly seem to be, viz., visions transferred to the canvass or the plate. He was a thorough idealist: "I assert for myself that I do not behold the outward creation, and that to me it is hindrance, and not action. 'What!' it will be questioned; 'when the sun rises, do you not see a disc of fire somewhat like a guinea?' 'Oh,

no, no! I see an innumerable company of the heavenly host crying, Holy, holy, holy, is the Lord God Almighty.' I question not my corporeal eye, any more than I would question a window concerning a sight. I look through it, and not with it." A young artist, on finding the springs of inspiration dried up within himself for a fortnight together, went to Blake for comfort, and found him sitting at tea with his wife. After hearing his complaint, Blake turned suddenly to his helpmate and said, "It is just so with us—is it not?—for weeks together, when the visions forsake us; what do we do then, Kate?" "We kneel down and pray, Mr. Blake."

His quality as an artist does not properly concern us here, but we may be excused for quoting what his editor, a most competent critic, says of it: "Blake's splendid, terrible and daring imagination was embodied with equal force in the art of design and in that of poetry. 'Execution,' he has said, 'is the chariot of genius;' and never did that charioteer reveal himself in more unmistakable guise, than in the handiwork of Blake. To see one of his finer tempera or water-color pictures, or one of his partly color-printed, partly hand-colored designs, or of his designs engraved by himself on the ordinary system, is a new experience—one that you cannot prepare for nor forestall. The mysterious meaning of the work, its austere intensity of presentment, the rush (as it were) of spiritual and vital force into all its forms, animating them with strange fires of life and frenzies of endeavor, the rapture of effort and of repose, the stress and the hush, give these works a different character from aught else. In fact, they have not so much the semblance of inventions (highly inventive though they manifestly are, in the ordinary aesthetic sense of the word) as of visions, or of revelations or intuitions. There is severity and there is beauty, each in a high degree; but what impresses the spectator most is the strength of receptivity or response in the designer—the energy with which he has clutched at the vision, the closeness of rendering with which he has imparted it to others."

During his life he published three collections of poems. The first, *Poetical Sketches* (1783), were written between his twelfth and his twentieth year; and they certainly hold a remarkable place in the history of English poetry. The school of Pope was falling into utter decay; its verbiage and its artificial flowers were losing all the lustre they ever had to boast; but the earliest productions of the

more natural school of Cowper and Burns were not yet accessible to the young poet when he wrote these *Sketches*. Yet he is nearly as free as any writer of our own century from any trace of the mannerisms of the time, while he exhibits a grandeur of imagination, and a vigor of style, which place him at once above all his contemporaries. It is of course a book of echoes, as well as of a voice. The longest piece is a number of scenes from a play called "King Edward the Third," and it shows how thoroughly he had entered into the spirit and the manner of Shakespeare. Another is "An Imitation of Spenser." Here is a "Song" which he wrote before he was fourteen years old :

How sweet I roamed from field to field
 And tasted all the summer's pride,
 Till I the Prince of Love beheld
 Who in the sunny beams did glide.

He showed me lilies for my hair,
 And blushing roses for my brow;
 He led me through his gardens fair
 Where all his golden pleasures grow.

With sweet May-dews my wings were wet,
 And Phoebus fired my vocal rage;
 He caught me in his silken net
 And shut me in his golden cage.

He loves to sit and hear me sing,
 Then, laughing, sports and plays with me;
 Then stretches out my golden wing
 And mocks my loss of liberty.

Like the others of these *Sketches*, this does not give us the full and ripe quality of the man; but who else in the year of grace 1761 was capable of such English? More mature and more characteristic of his style is his

ODE TO SUMMER.

"O Thou who passest through our valleys in
 Thy strength, curb thy fierce steeds, allay the heat
 That flames from their large nostrils! Thou, O Summer,
 Oft pitchedst here thy golden tent, and oft
 Beneath our oaks hast slept, while we beheld
 With joy thy ruddy limbs and flourishing hair.

“Beneath our thickest shades we oft have heard
 Thy voice, when Noon upon his fervid car
 Rode o’er the deep of heaven. Beside our springs
 Sit down, and in our mossy valleys, on
 Some bank beside a river clear, throw thy
 Silk draperies off, and rush into the stream!
 Our valleys love the Summer in his pride!

“Our bards are famed who strike the silver wire,
 Our youth are bolder than the Southern swains,
 Our maidens fairer in the sprightly dance;
 We lack not songs, nor instruments of joy,
 Nor echoes sweet, nor waters clear as heaven,
 Nor laurel wreaths against the sultry heat.”

This was the only literary work he ever printed with ordinary type, for he had no credit with the publishers. When his *Songs of Innocence* appeared in 1787, the words were engraved in relief, with marginal designs printed in colors and then touched by hand in imitation of drawing. These, with the *Songs of Experience*, (1794) form one whole, and are in some respects the most valuable of Blake’s poems. They fill together not much over a fourth of the pages of Mr. Rosetti’s edition, but they contain nearly all the poems by which Blake has reached the general ear. Their great difference from his *Sketches* fully authenticates the early date he assigns to his earlier work. They sound like poems from the world’s very childhood, when the wives of the Patriarchs sang their Esaus and their Benjamins to sleep in the tent’s shade; and yet they are, in point both of form and of content, among the masterpieces of our poetry. Take the very slightest of the earlier collection, that called “Infant Joy,” and if you think it a mere carved cherry-stone, then pray carve us such another:

“I have no name
 I am but two days old.”
 What shall I call thee?

“I happy am
 Joy is my name,”
 Sweet joy befall thee!

Pretty joy!
 Sweet joy, but two days old,
 Sweet joy I call thee:
 Thou dost smile,
 I sing the while;
 Sweet joy befall thee!

But his most characteristic pieces are puzzles, gorgeous in style and intricate in sense. Such is

THE TIGER.

Tiger, tiger, burning bright
In the forests of the night,
What immortal hand or eye
Could frame thy fearful symmetry?

In what distant deeps or skies
Burnt the fire of thine eyes?
On what wings dare he aspire?
What the hand dare seize the fire?

And what shoulder and what art
Would twist the sinews of thy heart?
And when thy heart began to beat,
What dread hand and what dread feet?

What the hammer? what the chain?
In what furnace was thy brain?
What the anvil? What dread clasp
Dare its deadly terrors grasp?

When the stars threw down their spears,
And watered heaven with their tears,
Did he smile his work to see?
Did he who made the lamb make thee?

In the last line, we take it, lies the key to the whole poem, whose questions all point toward the same mystery—the seeming discrepancy between the divine tenderness and the fierce products of the divine creative power.

Another and a still stranger group of poems are Blake's "Prophetic Books," a series of wild visions whose motive is hard to detect. Mr. Swinburne, in his *Essay on Blake*, has bestowed upon them especial eulogy; but to most, even of Blake's true lovers, they are and remain unread riddles, full of gorgeous imagery and mysterious allegory. In form they are hardly even rhythmical, and for this reason Mr. Rossetti has excluded all but two of them—*The Book of Thel* (1789) and *Tiriel*—from his edition of Blake's poems. From another of them named *Milton*, engraved in 1804, he reprints the preface, which is worth quoting:

And did those feet in ancient time
Walk upon England's mountains green?
And was the holy Lamb of God
On England's pleasant pastures seen?

And did the countenance Divine
Shine forth upon our clouded hills?
And was Jerusalem builded here
Among these dark Satanic mills?

Bring me my bow of burning gold!
Bring me my arrows of desire!
Bring me my spear! O clouds, unfold!
Bring me my chariot of fire!

I will not cease from mental fight,
Nor shall my sword sleep in my hand,
Till we have built Jerusalem
In England's green and pleasant land.

Besides poems of the classes we have specified, a considerable number of pieces have been collected from other quarters for the present edition. Some are reprints; many are quite new to the public. Of the former class is the "Everlasting Gospel," a "wholly amazing and partly splendid poem," which first appeared in Mr. Swinburne's *Essay*. It is in the main a poetical version of the strange, poetical Antinomianism which meets us in the conversations recorded by Crabbe Robinson, a form of thought entirely out of keeping with Blake's life, and only explained by his general incapacity to see the lower truth of law, as well as the higher truth of love. Hence his continual opposition and contrast of the things which the Apostle connects so closely, when he says, "Love is the fulfilling of the law." Blake's opening lines run—

The vision of Christ that thou dost see,
Is my vision's greatest enemy.
Thine is the friend of all mankind;
Mine speaks in parables to the blind.
Thine loves the same world that mine hates;
Thy heaven-doors are my hell-gates.
Socrates taught what Miletus
Loathed as a nation's bitterest curse;
And Caiaphas was, in his own mind,
A benefactor to mankind.
Both read the Bible day and night,
But thou readest black where I read white.

The burden of the poem is, Christ overthrows the law and all its works; and certainly he does read black where others read white in the Gospels, in order to make out his case. After telling in his own way the story of the woman taken in sin—the spurious passage which has an Antinomian look—he proceeds:

The earth trembled and naked lay
 In secret bed of mortal clay,
 On Sinai felt the hand divine
 Putting back the bloody shrine;
 And she heard the breath of God
 As she heard by Eden's flood:—
 "Good and evil are no more,
 Sinai's trumpets cease to roar;
 Cease, finger of God, to write,
 The heavens are not clean in thy sight.
 Thou art good, and thou alone,
 Nor may the sinner cast one stone.
 To be good is only to be
 A God, or else a Pharisee."

At the close he bursts into scornful invective against the philosophic heroes of his time; but the passage is not so fine as is a shorter poem in the same strain, entitled "Scoffers."

Mock on, mock on, Voltaire, Rousseau,
 Mock on, mock on; 'tis all in vain;
 You throw the sand against the wind,
 And the wind blows it back again.

And every sand becomes a gem
 Reflected in the beams divine;
 Blown back, they blind the mocking eye,
 But still in Israel's paths they shine.

The atoms of Democritus,
 And Newton's particles of light,
 Are sands upon the Red Sea shore,
 Where Israel's tents do shine so bright.

We have avoided quoting his most powerful poems, because of their abstruseness. Such pieces as "The Mental Traveler" and "Broken Love" are rather to be pored over than read; and like very much of his work, such as his Prophetic Books, they call for abundance of patient and loving exposition, such as Dante Rossetti, Swinburne, and others, have already bestowed upon them. But

even those who have no taste for mysteries will find plenty of enjoyment in his poems, and will learn to love the man for his Christlike sympathy with the humble and the weak, with the despised wild-flowers, the suffering children of the great cities, with all who are sore from the world's blows and bruises. Yet at times he can write with caustic in the ink, but it is when he pours contempt upon the idols and the masters of the day. Such are some of his "Fragments" and his "Epigrams," of which these are specimens:

Some people admire the work of a fool,
For it's sure to keep your judgment cool.
It does not reproach you with want of wit;
It is not like a lawyer serving a writ.

Great things are done when men and mountains meet;
These are not done by jostling in the street.

The errors of a wise man make your rule
Rather than the perfections of a fool.

Her whole life is an epigram
Smack, smooth, and nobly penned,
Plaited quite neat to catch applause,
With a strong noose at the end.

Sir Joshua praises Michael Angelo;
'Tis Christian meekness thus to praise a foe.
But 't would be madness, all the world would say,
Should Michael Angelo praise Sir Joshua.
Christ used the Pharisees a rougher way.

He [Rubens] makes the lame to walk, we all agree;
But then he strives to blind all who can see.

Here lies John Trot, the friend of all mankind;
He has not left one enemy behind.
Friends *were* quite hard to find, old authors say,
But now they stand in everybody's way.

He could write sharply and bitterly of his friends—of Stothard, Hayley, and even Flaxman—and use a perverse ingenuity in ascribing to them imaginary faults. A long life of neglect and of privation had not left him unscarred or bruiseless; but it is strange that so much of sweetness was in the man to the end, and prevailed over all temptations. For this man was the *pictor ignotus*, with the con-

sciousness of possessing unrivalled imaginative powers, and the solitary capacity for artistic work of the very highest order. Only Turner, of all his contemporaries, can be compared to him; and Turner belongs to a later generation. And because he could not rise or stoop,—which you will—to the technical and conventional standards of his profession and his age, he was passed by. He loved appreciation as every sound, healthy nature loves it; but it was denied to him. Yet he was not soured or embittered by this denial, though now and then he spoke in his haste with sharp and often unjust words. He kept what he calls

The countless gold of a merry heart,
The rubies and pearls of a loving eye,

as treasures of which none could rob him. He lived his own life, “seeing Him who is invisible,” and therefore “enduring” all adversities; for his song was ever

I'm in God's presence night and day,
He never turns His face away.

And therefore the world, having grown wiser, takes him to its heart at last, not to give but receive warmth. The lightest touch of his pencil or his burin is prized; and genius pores over his “dark sayings on a harp,” seeking to discern the great meanings of his verse. He has become one of the great order of enigmatic seers, whose visions are clear in part only to the initiated, but obscurity itself to the profane—the order of Parmenides, Erigena, Master Eckhart, Nicolaus Cusanus, Giordano Bruno, Böhme, Saint Martin, Hamann, Baader, and, in some of their moods, of Plato, Goethe, Hegel and Schelling.

T.

THE GREAT PLATEAU REGION.

THE country drained by the Colorado River and its affluents is a peculiar region, without its parallel on the globe. It is essentially a region of plateaus and cañons, the plateaus mainly dry and sterile, where the streams flow in deep gorges, far beneath the surface.

The longest and most northern branch of the Colorado is the Green River, which heads in the Wind River Mts., against the

sources of the Big Horn and the Snake. This stream, in its long course towards the south, receives the waters of the Uinta from the west, and the Tampa and White from the east, all considerable streams. Near latitude $38^{\circ}15'$, longitude $110^{\circ}0'$, it is joined by the Grand, a stream of nearly equal size, which heads in Middle Park, Colorado, drawing its first supplies of water from the snow-fields of Long's Peak. It receives a number of large affluents; Williams Fork, the Muddy and the Blue in Middle Park, the Eagle, the Roaring Fork, the Gunnison and the Dolores farther down its course.

Below the point of junction of the Grand and the Green, the stream is known as the Colorado. Why this name was not given to the Green River Fork as well, puzzles the comprehension. It is the largest and longest of the two, and continues the direct course of the Colorado. The same is the case with the Missouri Fork of the Mississippi, the Jefferson Fork of the Missouri, the Snake Fork of the Columbia, and in many other cases. It is an abuse which, in these cases, it is too late to remedy.

Below the junction of the Grand and the Green, the principal branches of the Colorado from the east are the San Juan, which rises in the southern slopes of the San Juan mountains, the Colorado Chiquita, or Flax River, and the Gila; from the west are the Dirty Devil, the Paria, and the Virgen.

The drainage area of this vast region is limited on the east, north and north-west by high mountain ranges. On the east the mountain barrier commences with the Sierra Madre of New Mexico, thence passing up the San Juan mountains to the Sawatch and Park ranges of Colorado. From the northern end of the Park range the dividing ridge sweeps around the head of the Green in low, broken ranges, which afford several easy passes. It joins the Wahsatch range near its head, and follows it in a direction nearly due south to its foot in latitude 37° .

The rocks of this vast area are stratified, mainly sandstone, horizontally bedded or nearly so. The surface is nearly flat; there is no rolling or undulating country. Changes of level take place by very gentle slopes, or by abrupt, precipitous steps. A large part of the surface consists of bare rocks, with no soil or vegetation. A part is covered with thin, sandy soil, which supports a growth of sage and cactus, or even a few *piñon* pines and cedars. The vege-

tation when present is scanty, and only such as is characteristic of a dry and almost desert country.

Nearly every stream flows in a cañon, a narrow valley, with precipitous walls. The cañons of this region are all quite similar in their cross-sections. The upper edge is very sharply cut. At the top is a cliff, vertical, or nearly so, of a proportional height varying extremely. At the foot of this is a steep slope of talus. The more rapid the stream the narrower is the cañon, and the less the amount of debris; so that, in the case of some of the swiftest torrents, the cañons consist simply of two vertical walls, closely enclosing the stream-bed. In the case of large streams, we frequently find a modification of this form. The cañon wall presents a series of benches from top to bottom, as though a series of cañons had been cut, one within another. At the foot of each bench there is, in nearly or quite all cases, a change in the character of the rock, that of the lower portion being the harder. Many beautiful examples of this kind of cañon have been observed by the writer.

Most of the cañons are cut in stratified rocks, nearly or quite horizontally bedded. Horizontal sections of these cañons show long, smooth curves, with no sharp angles. Vertical sections show abrupt precipices, and narrow benches, with sharp angles. Cañons cut in granite and trachyte, on the other hand, show very rugged horizontal, as well as vertical, sections. They have little or no talus, and very narrow bottoms. They are merely rugged notches.

These two classes of rocks are frequently combined in one cañon, forming a double cañon. This is the case with the Grand Cañon of the Gunnison, and in a portion of the Grand Cañon of the Colorado. In the former, in the lower part of the cañon, about two thousand feet in height, the walls are extremely precipitous and rugged, and the river fills the bottom completely, leaving no beach whatever. At the top of the gneiss is a bench, nearly horizontal, extending back a few hundred feet, whence rises steeply a slope of talus, capped by a precipice of about two hundred feet. The whole height of the upper cañon is about one thousand feet.

The cutting of cañons of the general class described above, is confined almost entirely to Colorado drainage. With the exception of the cañon of the Snake river, in the basalt plateau of Idaho, the cañons of erosion are simple gorges by which streams traverse mountain ranges.

Now, why does this condition exist? Why is it that on this slope every stream cuts a cañon, while on the eastern slope, on the great plains, there are no cañons whatever? This is due to several causes, all which may be traced directly to the aridity of the climate and the amount and character of the rainfall. The atmosphere is extremely dry; the rainfall is very slight, and the little that falls comes, not in long storms, but in sudden deluges. From the dryness of the atmosphere and the want of moisture of the surface, there is little vegetation—very little indeed of arborescent vegetation; and, both as a cause and result, little or no soil. The rains, coming as they always do in floods, run immediately off the bare rock, or over and through the thin sandy soil, sweeping it with them, and collecting in the little runs with incredible rapidity, rush down them in great body and with great velocity, sweeping everything before them. The waters are turbid and thick with sediment, coarse and sharp-edged from the rapid cutting of the rocks. This sand and gravel carried in suspension is the principal cutting agent, as water alone has but little cutting power. The high winds also, which are very frequent in this country, fulfil their part, and a very important one in this work, in planing off the surface, and leaving their shavings in the form of sand for the waters to take up. The erosive power of these high winds, with the sand which they set in motion, is very great. A well-known example of their power is seen in the chiseling of the monuments in Monument Park, near Colorado Springs, Colorado. Numberless similar examples may be seen in the country of the Colorado River.

The difference between the conditions here and in other parts of the West is mainly one of degree only; but the results are widely different. In the case of the plains, on the eastern slope, the climate is moister, the rainfall greater, and the storms are of greater duration, and of a less sudden and explosive character. As will be seen farther on, the slopes of the streams are as great or even greater, showing that this element does not produce any of the effect in question. In consequence of this difference in meteorological conditions, the materials for soil, instead of being washed immediately into the water courses, and thence carried on by the streams as cutting agents, collect and become covered with vegetation. This, in turn, in great measure, prevents sudden floods.

The existence of this great plateau region was scarcely suspected

before the time of the Pacific Railroad explorations, which commenced about 1853. Captain Gunnison, with one of the parties engaged in this work, traveled down the Gunnison, and the Grand nearly to its mouth, and crossed the Green, traversing the whole width of this area without, so far as indicated by his report, suspecting that he was in a peculiar country. He was engaged in the discharge of his duty, which was to discover a practicable route for a railroad, and had no energies to spare for ulterior aims; although the geologist of his expedition might have been expected to see what lay before his eyes.

The party in charge of Lieut. Whipple, whose route was on or near the 35th parallel of latitude, crossed the plateau near the head of the Colorado Chiquito, and the geological report, written by Prof. W. P. Blake from the notes of Mr. Marcou, who accompanied the expedition as geologist, recognizes the character of the country which was traversed. In 1857-58 Lieut. Ives, acting under the War Department, went up the Colorado in a small steamer to the foot of the Black Cañon, about 500 miles above its mouth, and made an elaborate reconnoissance. Leaving the river near this point, he crossed the plateau in an easterly direction to Fort Defiance, New Mexico. On his way, he succeeded in reaching the edge of the Grand Cañon in two places, at the mouths of Diamond creek and of the Colorado Chiquito. The geological report of this expedition, written by Dr. Newberry, who accompanied it, first recognized the existence of this vast system of plateaus and cañons. It has remained for later explorations and surveys to develop our knowledge of the country in anything like detail.

With regard to the immediate course of the Colorado above the head of steamboat navigation, very little was known until quite recently. It was known that the river ran—for a part, at least of its course—through a tremendous cañon, in the great table-lands of which the country was made up; a cañon so deep that, in Western parlance, it required “the combined efforts of several men to see to the bottom.” Wild stories of the river’s having cut tunnels for itself in places were current, and stories of fabulously great falls obtained full credence. The two views of the Grand Cañon which Lieut. Ives had obtained, served but to give basis to these extravaganzas. The stories told by trappers and prospectors, who had,

in their wanderings, reached the margin of the cañon, were worthy of the Arabian Nights.

The first information which was at all authentic, concerning the river's course and its cañon, above the point which Ives reached, is contained in a paper by Dr. C. C. Parry, read before the Academy of Natural Sciences of St. Louis. It consists of an account of the descent of the cañon of the Colorado, by one James White, in 1867. The account states that he, with two companions, had been on a prospecting trip in the San Juan mountains, in southwestern Colorado. Not having much success, they turned their backs on the mountain, and traveled down the Mancos and San Juan rivers. They followed the latter stream down to the head of its cañon, where they left it and went northward to the Grand River, crossing on their way a range of mountains. They reached the Grand about eighteen miles above its mouth, and, looking for a place to descend from the plateau, followed it up for twelve miles, when they found a way down and crossed the river; but in climbing to the summit of the plateau on the other side, were attacked by Indians, and one of their number killed. The two remaining made their way back to the river, hastily constructed a raft, and started down the stream. Soon after passing the mouth of the San Juan, on the fourth day of their adventurous voyage, White's companion was washed off the raft and drowned. All the provisions were lost at the same time, and thenceforward White suffered much from hunger. On the fourteenth day, he reached Callville, at the mouth of the Virgin, more nearly dead than alive.

The facts which White observed in this terrible trip have been confirmed by Major Powell's observations, and show his account to be authentic; for instance, that the junction of the San Juan is in a heavy cañon, and that there are no large cataracts or any perpendicular falls. The average height of the cañon walls White estimated at 3000 feet, which is not far from the truth respecting the immediate cañon. The upper benches, which, though set back some distance from the edge, can properly be regarded as part of the cañon, could not have been seen by him, drifting along at the bottom of the abyss. He speaks of passing for days between walls of dark-colored, igneous rock, which is undoubtedly the granite that Major Powell notes in the Grand Cañon.

In 1869 an attempt was made to navigate the Grand river by

Capt. Samuel Adams. He started at Breckinridge, Colorado, near the head of the Blue, and succeeded in getting to the mouth of the Blue and down the Grand a short distance, when his boats were wrecked and the expedition was abandoned.

At this time enough was known concerning the character of the country bordering the Colorado and Green rivers to show that the only practicable way of exploring these streams would be by following them down in boats. The impassable character of the cross-cañons alone made it impossible to follow the streams by land, even without the additional difficulty from want of water and vegetation.

Acting on the above conclusion, Major J. W. Powell undertook to navigate the rivers through the whole length of the cañon country, from Green River station, on the Union Pacific Railroad, to Callville, at the mouth of the Rio Virgen. The story of this trip has been told most admirably by Major Powell himself, in the pages of Scribner's Magazine, and also in his report, made to the Secretary of the Smithsonian Institution; so that it will be necessary here to make merely the briefest recapitulation of the events, and a short sketch of the results of this adventurous voyage.

He started late in May, 1869, with a party of ten men, in four boats. They met with various adventures incident to such a voyage on a swift stream, but no serious mishaps, and on August 30th arrived safely at the mouth of the Rio Virgen. They found no falls and no very bad rapids: in many places were obliged to make portages, some of them long and difficult. They were forced to run several rapids; and one can easily imagine that, at times, the traveling was exciting enough.

The branches of the Colorado and the Green from the East, the Tampa, the White, the Grand and the San Juan, have been examined from their heads nearly or quite to their mouths by the survey under the charge of Dr. F. V. Hayden.

Starting at the head of the Green River, we find it traversing in a southerly direction a desert country, of alkaline soil, producing a rank growth of that staple product of the West, *artemisia*, or, popularly, sage-brush. This is the Green River basin. At the foot of this basin the river meets the Uinta range, trending east and west, directly across its course. This range it traverses, by a devious course, cutting gorges of enormous depth, and on its way receives the waters of the Tampa. On emerging from the mountains it enters

another valley, quite similar to that above, and known as the Uinta basin. In this basin it is joined by the Uinta and White Rivers. Traversing this basin, it gradually enters a cañon in stratified beds. These beds, and the surface of the country with them, incline at a very low angle towards the north, so that the stream, in its southern progress, is constantly getting deeper and deeper below the surface, until, in a distance of ninety-seven miles, the walls have risen to a height of 3300 feet above the river. At this point the walls break off abruptly, in a direction transverse to that of the river, leaving a small valley at the foot of the cliff.

Lower down, the river commences immediately to run into a second cañon, of a character precisely similar, and ending in a similar manner, by an abrupt cliff. The length of this second cañon is thirty-six miles, and its height above the river, at the foot, is 2000 feet. A third similar cañon follows, of a length of sixty-two and a half miles and a maximum depth of 1300 feet, before the mouth of the Grand is reached. The upper of the cañons produced by these inclined steps has been named by Major Powell the Cañon of Desolation, and the cliffs at its foot, the Brown Cliffs. The second, Gray Cañon, and its cliffs, are known as the Book Cliffs or Book Mountains, of Captain Gunnison's narrative. The line of these cliffs extends in an easterly direction to the Grand, and borders the Grand in an almost unbroken line to the edge of the mountains. The third cañon bears the name of Labyrinth Cañon, and its terminating cliffs, the Orange Cliffs. Stillwater Cañon begins at the foot of the Orange cliffs, and extends below the junction of the Grand and the Green. The meeting of the waters takes place in the gloomy depths of this canon, 1300 feet below the upper surface.

Following the Grand River up from the point of junction, we find its enclosing walls gradually lessening in height until they are scarcely more than bluffs in size. Then we approach the Sierra la Sal, which rears its bare summits 9,000 feet above us, and 13,000 feet above the sea. Here the monotony of plateau and cañon is broken. The enormous eruption of trachyte by which these mountains were formed has terribly upset the country for many miles around, and through the mass of ruins the great river is hard pressed to find a passage. Farther up, we find it alternately winding about tranquilly in open valleys, and rushing madly through cañons in the

soft sandstones, until we reach the edge of the mountains. Here we leave it and return to the Colorado.

A short distance above the junction of the Grand and the Green, the surface of the country begins to rise with a long, gentle slope, towards the summit of a fold. Stillwater and Cataract cañons are cut in this fold. The walls grow gradually higher, but before the river reaches the axis of the fold, it seems to become discouraged at the prospect of the difficulties ahead, and turning nearly at right angles, it runs, diagonally to the axis, and as gradually out of the fold, at the mouth of the Dirty Devil River. The axis of this fold must have a direction about northeast and southwest. There is here a bit of open valley, and then another cañon—Glen Cañon—succeeds. In this latter the river passes around the end of the fold which headed it off above. In the course of Glen Cañon the river crosses a monoclinical fold where the dip is slightly north of east. The greatest height of Glen Cañon is at its foot, at the mouth of the Paria, where it is 1600 feet.

Again the river runs into cañons, as if afraid of the sunlight. There is here another inclined plateau sloping towards the north, and in it the river burrows deeper and deeper until, at the mouth of the Colorado Chiquito, it is 3800 feet below the surface. This is Marble Cañon. The river has turned towards the west, and at the foot of this cañon, or—for this is continuous with the Grand Cañon—at the foot of this portion the general course of the river is west. At this point it is crossed by the Paria fold, in which the drop of the beds is to the east, thus suddenly increasing the height of the surface of the country and that of the walls. At the point of crossing the river the throw is about 1,800 feet.

Farther down the river is met another fault, which in some places is preserved as a fold running across the river's course. This is an enormous one, with a throw of about 3,000 feet. The drop is here, as in the Paria fold, to the east. This is the Eastern Kaibab fault, and the plateau above it is known as the Kaibab ("*mountain lying down*") plateau. The cañon here gains its maximum depth, which is, more than 6000 feet. This is not in a single slope from the water; a large part of it is in one or two benches, which stand back one, two, or three miles from the edge of the lower cliffs. The great throw of the Paria fold has brought to the surface the

underlying granite, and the lower cliffs of the Grand Cañon are of this rock.

Crossing the Kaibab plateau towards the west twenty-five or thirty miles, we encounter a steep descent to the west. This marks the line of a fault, the Western Kaibab fault. This also, like the other, is in some places a fault, in others a fold. The throw ranges in amount from 500 to 2,000 feet. The deepest part of the Grand Cañon is now passed.

Still going west, we pass over a flat country to another steep descent, this time of about 800 feet. This marks the line of the Toroweap fault. Twelve or fifteen miles further in the same direction, and we meet another and greater fault, with the throw in the same direction, and of 2000 to 3000 feet throw. This is called the Hurricane Ledge fault, and twenty-five or thirty miles beyond is still another, the Grand Wash fault. This is an enormous one, with a throw of 5,000 feet where it crosses the river. This brings the level of the country nearly down to that of the river; and thus ends the Grand Cañon.

Thus we find its walls to rise in successive, abrupt steps from the east, the intervening plateau being nearly flat, until they reach a height above the river of more than 6,000 feet,—where the river cuts through the Kaibab plateau,—and then to descend in a similar manner to the level of the river at the mouth of the Grand Wash.

Below the Grand Wash, a dry stream-bed which enters the Colorado from the north, the river turns south again, and enters the Black Cañon of Ives's report—a cañon which would be a remarkable feature were it not brought into such close juxtaposition with that briefly described above.

Below it the river runs in narrow valleys and low cañons to its mouth.

An examination of tables showing the slopes of the Green, Grand Colorado and Arkansas Rivers, illustrates the fact that the slopes of the streams of the plateau region are not materially different from those of the rivers of the plains. The profile of the Grand River is known from the work of Dr. Hayden; that of the Green and the Colorado from those of Major Powell and Lieut. Ives; that of the Arkansas is derived from Dr. Hayden and from other sources.

HENRY GANNETT.

CONCERNING ZEAL. III.

IF in any community of the old world, which especially prided itself on its public schools and the general diffusion of intelligence among its people, we were to find a popular work of history in which the American Revolution was described as a Canadian insurrection, and General Washington as a Canadian hero, it would most likely make us skeptical as to depth and quality of the knowledge possessed by its people. Yet in the popular accounts of the Murid war in the Caucasus¹ which circulated in this country and in England some fifteen or twenty years ago, we find accounts of Schamyl and his Circassians, thus identifying the great Murid chieftain with a people whose boundaries he never crossed, whose soldiers never fought under his banner, and who evinced from first to last not the slightest sympathy with the great struggle for Caucasian and Mohammedan independence in which he was engaged. Aliens alike in race and in religion from Schamyl and his people, the Circassians (or *Tscherkesses*) were stirred by none of the impulses that prevailed among their mountain neighbors to the east of them. They were themselves comparatively recent converts to Islam, and very imperfectly acquainted with their professed creed. Up to early in the eighteenth century the Circassians were Christians, first converted by the Genoese, though their Christianity coexisted with much ignorance and barbarism, and many survivals of their primitive Paganism. To the last, the Circassians never lost a superstitious reverence for the Christian shrines and ruined wayside crosses which line their mountains. And when they submitted to expulsion from these mountains by the Russians, almost without striking one manly blow for their creed and their country, and were transported to Turkish territory, it was found necessary to teach them the first principles, the commonest usages, and the commonest prayers of Islam. Their Mohammedanism, such as it was, was of the orthodox or Sonnee type; while the Shiya'ee sect, though not universal in the Eastern Caucasus, was that of Schamyl and of most of his subjects, and had been the creed of their fathers for seven or eight cen-

¹ Take for instance the popular work *Schamyl and the Circassian War*, by Mr. John Mackie, published in 1856 by Jewett of Boston, and very widely circulated at the time.

turies. Under the influence of the Murid revival, the popular acquaintance with their creed and its laws among the tribes of the Eastern Caucasus was not behind that which existed in any quarter of the Mohammedan world. It was the bond which united them in spite of the widest differences of race, the natural isolation produced by intervening mountain ranges, and long traditions of separation.

From the earliest historic times this mountain range has been peopled by "more than a hundred" tribes, whose variety still makes it a sort of ethnological and philological museum. It reminds one of a thorn-bush growing by a thoroughfare through which many flocks of sheep have passed; every flock has left a tuft of wool in its passage. Situated on the great highway of the nations, it has seen the hordes and tribes of Asia pouring into Europe for millenniums past. And its petty valleys of alluvial soil, at once productive and easy of cultivation, have attracted little colonies from every great migration to settle among its hills. In the time of Pliny, when Colchis was still the mart for commerce with the far East, one hundred and thirty languages were spoken in its market place. An Egyptian colony and a colony of Chinese from Assam vied in the cultivation of its rich but scanty soil, and nearly every race between the Nile and the Pacific were represented among its peoples. If the peoples we call Turanian or Hamitic, for convenience of classification, were in the majority, the nobler Aryan race was not absent, and the Iran or Ossetian race still represent "the children of light" in this great boundary between the "Iran" and the "Turan" of the Persians.

This variety of race is confined chiefly to the Eastern Caucasus, for the passes of the western or Circassian part of the range lead down only to the shores of the Black Sea. And among this variegated population, zealous Shiya'ee missionaries of Persia had early proclaimed the faith of the Prophet, and had it brought to some sort of religious and political unity, though without interfering with the differences of language which separated its little districts. At the beginning of the present century, political unity had entirely disappeared. Every petty district had long been living under hereditary chieftains, who jealously preserved their independence, and waged endless wars upon each other and upon the plains. Freebooting was the usual profession of the people. They were diplomatically regarded as having formed a part of the Persian Empire, until the treaty of peace between that and the Russian Empire, in 1812,

transferred them to the latter. But for centuries they had taken no orders from the Shah, and they had no intention of paying any allegiance to the Czar. Such a relation of a mountaineer people to the government within whose territory they lie, has never been unusual in the East. It has been the position of the Kurds (the Kardouchians of Xenophon) from the first; even when they lay at the very gates of the sovereigns of Nineveh, they still preserved a virtual independence; and as their country did not present sufficient inducements to balance the hard fighting needed for its conquest, they were quietly left alone. So Persia had treated the people of Lesghistan and Daghestan, whom she now transferred to Russia; but Russia followed different maxims, and would tolerate no independence within the boundaries of the empire. The *Tarikat* and *Shariat*, or moral and judicial law of Islam, must give way to the imperial law.

At first it would seem as if no united resistance would be offered to the conquest, and that they would take the districts in detail. The Moslems of the plain throughout three Khanates made their submission, and the Khans took their places in the civil service of the Czar. And least of all did the religious condition of the country promise a successful resistance. Its Mohammedanism had fallen into decay; the laws to be set aside had long been neglected; the Moollahs as a class were grossly ignorant, covetous and neglectful of their duties; the sacred customs were neglected, and a general indifference to their religion pervaded the whole country. But in one heart in Daghestan the fire of Moslem zeal burned steadily and fiercely, and thence it spread until the Eastern Caucasus was ablaze. Mohammed Moollah, the author of the Murid revival, was a man of noble bearing, of great purity of life, and devoted to the law. He was completely blind, but in spite of this obstacle he had obtained the highest place among the teachers or clergy of the province; and the little mosque at Jaraglar was crowded with disciples to hear his expositions of the law and his exhortations to full obedience. It stood among the other small huts of a mountain village, an humble, two-storied dwelling, with a small external staircase leading to a sheltered balcony. Its interior is a naked apartment, thirty paces in length by eighteen in width, dimly lighted by three port-holes, and poorly carpeted with felt. Its walnut pulpit and the Koranic tents on the wall are the only relief to its barren-

ness. And this was the birthplace of a new faith, and here this mild-mannered, gentle-voiced, sightless Moollah began to preach to all Daghestan the war of zeal.

Tradition carries the new doctrine a step farther back, and speaks of a certain mysterious Ishmael in Shirvan, to whose feet our Mohammed made a pilgrimage when he was himself already the greatest and most popular Moollah in the Caucasus. But the story seems to us improbable. It was not by new expositions of the law that the zeal of the Murid was aroused; it was by the sense of danger and degradation to his faith and his people from the invasion of the Infidel. And no Persian Shiya'ee, no one but a mountaineer in view of the danger that threatened his mountain home, would have formulated the creed which was preached in the mosque at Jaraglar. For the peculiarity of Muridism is its attempt to close and reconcile the prolonged strife of Sonnee with Shiya'ee. Here, where the two great Moslem empires have so long stood face to face with their great northern enemy, and were both about to yield before the astute policy which used each alternately against the other, Mohammed pleaded for their reconciliation on the matters which lay at the root of their dissension. In compliance with the prejudices of the great majority of his countrymen, he retained the external usages and political organization proper to the Shiya'ee sect. But on the other hand he proclaimed the Sultan of Turkey the lawful Caliph of Islam, while regarding him as having fallen for the present under the power of the unbeliever, and therefore unable to issue the necessary orders to begin the war of zeal. He therefore assumed the authority to proclaim the *jihad*, and his proclamation was conveyed to every village throughout Daghestan by his Murids, a secret organization to teach, to organize, and to share in the holy war. In every part of the country organizations were formed under their direction. A few of the Moollahs protested faintly that only the Caliph could order the *jihad*, and that the Koran itself forbade such a step wherever the faithful were outnumbered by the unbelievers. But the rising tide of the popular enthusiasm carried them away, and before the close of the third decade of the century the new movement had made itself master of all the mountains of Daghestan, and had begun to extend to other provinces of the Eastern Caucasus.

Kazi Moollah, the chieftain selected as the military head of the sect by Mohammed Moollah, prior to his own retirement to complete

seclusion, spent the first five years of his government in consolidating and extending his power. The petty chieftains, khans and beys, who possessed hereditary authority over the little tribes, were one by one brought into subjection and enrolled in the general mass of the faithful. The isolation of the separate districts was as far as possible overcome by a common organization, and by transferring both civil and military authority to the zealots of the sect. In the mountains he had success beyond his expectations, and even districts in which he had made no direct efforts sent in their adherence to the cause. But in the Khanates of the plain even of Daghestan, Russian influence was all-powerful; and in 1830 he began a series of sallies from the mountains, plundering the plain districts, and sparing neither Christian nor Moslem. But he lost confidence by sustaining some reverses, and in 1832, after resigning the command to Ghazmet Bey, he was besieged in his native village by the Russians, and killed in defending his own house to the last.

If Muridism could have been ruined by the faults of a leader, its second general would have ruined it. Although solemnly recognized as leader by Mohammed Moollah, he was destitute of the enthusiasm which animated his people, and was actuated only by personal ambition. After a few years of power, he was assassinated in the mosque by the foster-brothers of the young Khan of Avaria, whom he had treacherously put to death, and the command devolved upon Schamyl, the greatest of the Murids.

Schamyl was a native of Lesghistan, and his place at the head of the movement indicates its spread to the West. He was not the mere mountain warrior presented to us in most of the narratives of his exploits. He was a learned doctor of the law, a most eloquent preacher, an inspired prophet, and a mystic deeply imbued with the theosophy of the Persian Soofees. But with all his literary accomplishments, he was just the man for the difficult position. Much above the average height and strength, he had perfected his powerful physical frame by sustained exercise. His physiognomy marked him as a man of superior race, as probably of Aryan stock; and his manly beauty was the pride of his people. In intellect he was most fertile in expedients, never disheartened by reverses, full of enthusiasm for his cause, not less full of confidence in himself and his mission. And yet these qualities were checked and balanced by a sobriety, a common sense, an insight into the fitness of means to

ends, which rarely allowed him to miscalculate his probabilities of success, or to undertake a needless hazard. He could be at once the centre and source of his people's religious zeal, and the wary general that used their enthusiasm to the very best purpose. They looked up to him as a supernatural being, possessed of resources of a sort not common to mankind. His wonderful escapes seemed altogether "uncanny." He fell pierced with two balls at the side of Kazi Moollah, when that hero was killed at the taking of Ghimri, and he was left for dead. More than once the Russians captured the hill-fort in which Schamyl had taken refuge, after closing every possible way of escape; and then, after making the most careful scrutiny of the place, they found the bird had flown. No wonder that the simple mountaineers thought him kept in the especial care of Allah, and saluted him as one "raised from the dead to rule the living."

Yet no man can effect impossibilities; and had the military resources of Russia been rightly directed against Schamyl, instead of offering a twenty years' resistance, he must have succumbed in less than as many months. But the Russian generals were inspired by a sort of contempt for their enemy, which greatly contributed to his safety. Instead of perceiving that he had united the whole population of the Eastern Caucasus in a religious enthusiasm which was equivalent to the enlistment of every man, woman and child in his service; and that he had effected a complete and close organization of the most diverse elements by means of the Murid organization, they proceeded upon the Freebooter theory of the war. To fix upon the spot where this nest of banditti had their headquarters, to break up the gang by a sudden rush into the country, and, if possible, to sieze Schamyl, was the only plan they ever entertained. A fair specimen of this sort of campaigning was the expedition against Achul'gho in 1839. From June till September the place was subjected to a regular siege, and taken by storm with a loss of five hundred killed and nearly five times as many wounded. The storm "lasted a full week—from the 3d till the 10th of September. The Murids, although they had no hope of escape, would not surrender, and defended themselves like madmen. Women and children, with stones or dirks in their hands, flung themselves upon the bayonets, or hurled themselves into the abyss in their desperation. Mothers with their own hands slew their children, that they might

not have to give them up to the Russians; whole families were buried under the ruins of their houses. Individuals of the Murids, who were already enfeebled by their wounds, seeking to sell their lives as dearly as possible, inflicted deadly wounds upon those who sought to carry them off the field."² But Schamyl escaped them, probably by passing across the mountain on whose side the village and fort was situated; and the Russians achieved nothing at all commensurate with the extent of their efforts and their losses. When they returned to the plains, as they were obliged to do by want of supplies and of the means of transportation, the whole country was as absolutely in his power as ever it had been. Not even his *prestige* was impaired. On other occasions he adopted the bushwhacking tactics of the *guerrilla*. The Russian army found the whole country ahead of their column deserted; the villages empty and stripped of their valuables, or occupied only by a few women and children, while from every bush, tree and rock on their flanks a constant fire was kept up. And when at last they retreated, after effecting nothing worth speaking of, they were exposed to a constant fire in the rear until they emerged from the mountain defiles and reached the open plains. Then, with the rapidity of lightning, Schamyl would gather an army, and, selecting some undefended point in the Russian territory on the plains, would burn and plunder its villages and kill or carry off its people, and retreat to the mountains, fighting, as he went, with the Russian forces sent to intercept him.

The most famous of these sorties was that into Georgia in 1854, when two Georgian princesses were carried off to the mountains. Georgia, the ancient Iberia, called by the Russians Grusien, was a Christian nation of the Orthodox rite, but was long subject to the oppressions which their more powerful Moslem neighbors, especially the Turks, saw fit to inflict. One of these was an annual tribute of boys and girls, who were brought up as Mohammedans. In 1795 the Turkish aggressions had gone so far as the capture of their capital Tiflis, and the consequent withdrawal of their Government into the one remote province left it. Their King, dying the same year, bequeathed his kingdom to the Czar Paul, and when Alexander I. came to the throne he long hesitated about accepting

² *Sechzig Jahre des Kaukasischen Krieges; nach Russischen Quellen.* Von G. Baumgarten. (Leipzig, 1861.) S 109.

the bequest. It was his final decision which committed Russia to her great advance across the Caucasus upon the Turkish and Persian Empires, and consequently to the war whose fortunes we are describing. Schamyl's raid upon Georgia was a very politic movement. It was at the time when Russia was busied with the Crimean war. No active effort for the conquest of the Caucasus was going on, and the troops of the department had been for the most part withdrawn to the neighboring seat of war at Van. It was therefore safe to venture as far as the neighborhood of Tiflis, and in that neighborhood he might fairly expect to find captives of such a rank as would repay the danger by their ransom. But money was not his sole, nor even his main object. In the capture of Achul'gho in 1839, his oldest and best-loved son had fallen into the hands of the Russians. The lad had received the finest education that the Imperial capital could furnish, and had entered the Czar's service as a lieutenant of a Russian regiment. All his tastes had been given a new direction, not that which they would have received in the Caucasus. But Schamyl's heart yearned for his boy, and to secure some one whom he could offer in exchange for him was his chief object in seeking captives of rank by a raid into Georgia. The raid was quite successful; a large quantity of plunder and a great number of people were swept away from the peaceful province, which had hardly heard the sound of warfare for fifty years. And among the captives was a princess of the former royal family, and her relative, a lady of nearly equal rank. From their pens, after their return to Georgia, Europe received the first really authentic account of Schamyl, his home, and his people; and while their narrative is not always unprejudiced, it always furnishes us with the material for a fair judgment. They give us no very exalted estimate of Lesghian civilization, representing them as an ignorant and barbarous people, full of the most extravagant notions as to Georgian and Russian wealth, and greedy of gifts. It seems that Schamyl, even after he was convinced that the sum offered by the relatives of his captives was the largest that they could give, had some trouble in getting his Murids to agree to accept that, with the return of his son, as a proper equivalent. He had, in fact, to appeal to the religious excitability of his people, by bringing forward an old and much respected Moollah who for several days preached a sort of ascetic doctrine to the people, including a great contempt for filthy lucre.

The preaching had its effect, and the exchange was effected. The princesses and their attendants were restored to their friends and their homes after a captivity of nearly a year, and Schamyl's son returned to his native mountains with mingled feelings of affection for his father and of dislike for the sort of life he would be expected to lead. Schamyl would not allow his son to approach him in the Russian uniform; he postponed their interview until it had been exchanged for the brilliant costume of a mountain chieftain.

The young prince had not many years to spend in the mountains, for the beginning of the end was already come. In 1856 the command of the forces in the "government" of the Caucasus was entrusted to Prince Barjaetinski, with the possession of just the territory held at the opening of Schamyl's reign. Not a yard of soil had been conquered during the twenty years of continuous but blundering effort. In the autumn of 1859, the Prince issued an address to his soldiers, congratulating them on the conquest of the entire region, and four days later he announced that Schamyl was his prisoner.

The reason of this success is to be sought in the superior wisdom of the plans adopted by the new commander. He gave up at once the Freebooter theory of the war, and recognized the fact that Schamyl had at his back the whole people of his mountains. It was therefore no longer, as in times past, possible to conquer the country by taking the several tribes in detail. A united and enthusiastic people were to be subdued, and any disposition to undervalue their power or their determination would be disastrous. Prince Barjaetinski began by constructing a military road into the heart of their territory, and fixing a permanent centre of operations in the very midst of their mountains, with close and continuous connection with the plains. He made them understand that he had come to stay. His base of operations was chosen with consummate skill. Together with the military road which led to it, it nearly cut Schamyl's territory in two, and from it the Russians were able to attack each province and district in detail, while no other could come to its aid without laying itself open to a disastrous invasion. In this way the prestige of the new political union effected by Muridism was destroyed, and the old spirit of local particularism was awakened in the people. Some hill-forts offered a stouter resistance than others; there was much hard and steady fighting, but there was no great and united effort at concerted resistance. The fatal blow to

the power of Muridism was the voluntary submission to the Russians of two important tribes; and it might be said that after thirty years of unquestioned sway, the system broke up within three days, as this news spread among the mountains.

Schamyl's last stand was made at Mount Ghunib, in the district of Andalal, in southeastern Daghestan. The inaccessibility of the place, and the temper of the people, were both in his favor. Deserted by all but a few of his soldiers, he fled thither through districts already submissive to the Russians or hostile to himself, and entrenched himself in this last stronghold with a few hundred of his most devoted adherents. The entire people of an adjacent district, under the leadership of one of the very founders of Muridism, took the field against him; but the nature of the place seemed to render his capture impossible. "Mount Ghunib," he said, "is higher than the mountains, and there I sit. Above me, and still higher up, is God. Below me are the Russians. Let them take us by storm." But under cover of an assault in front, the Russians scaled the mountain in the rear and mastered the plateau which he held, while Schamyl retired with his Murids to the fortress. After two hours of parley, he surrendered himself to Prince Barjaetinski in person on the 25th of August, 1859. He died at Mecca in 1871.

Thus ended the political and military career of Muridism. With its disappearance, the unity of the tribes of the Caucasus disappeared also; local interest and particularist feeling revived in their old force, and the hereditary chieftains resumed their old places, or were replaced by new men whose eminence was the creation of the war. The democratic equality of Islam disappeared with the fall of the chieftain who made it possible, but will yet be restored by the Russification which every province of the Empire is destined to undergo. In this one thing, Russia is Moslem in her ideas, and the Czar is but a Christian Kaliph or Imam, who will tolerate no eminence but his own. What Kasi and Schamyl did with the petty chieftains of the Caucasus, the Alexanders and the Nicholases are doing with Poland, with Georgia, with Circassia, with the Baltic provinces; and will yet do with the Caucasus and Bokhara, and it may be with Finland. It is substituting everywhere a bureaucracy for the old nobility, who represent local traditions and local methods of government, just as did every Kaliph and Sultan who knew what his office was meant to be.

In comparison with Wahabeeism Muridism, as might be expected from the difference of the circumstances in which it originated, presents marked differences both of spirit and of detail. It is more like the Wahabeeism of India than that of the Nejed. It is not a protest against the corruptions of Islam itself, so much as an insurrection against the infidel who would fain overthrow the holy law. Its watchword was the *Shariat*, and not an anathema of *Sherk*. In its theological aspect it had not the severe, exclusive and intolerant aspect towards other parties in Islam that was taken by the Wahabees. It was irenic rather than polemic; inclusive rather than exclusive. Holding the frontier between Islam and Christendom, it was a plea for united action, for the union of Sonnee and Shiya'ee, against the common foe—a union not unknown, it is said, in the annals of Indian Wahabeeism, but utterly abhorrent to the true believers of central Arabia. And the Shiya'ee origin of Muridism was shown by the mystical character of its practical teaching. To the theocratist—be he Brahmin or Covenanter, Wahabee or Puritan—the relations and things of time and sense possess an inexhaustible significance as a part of the Divine Kingdom on earth. To the mystic—be he Buddhist or Soofee, Quietist or Quaker—they are less than nothing, mere vanity. To be abstracted from them, that we may have the mind firmly fixed upon the unseen and the eternal, is to the mystic the first and simplest of duties.¹ And so the Murid was taught. His creed had three leading articles—(1) complete obedience to the *Shariat*; (2) holy war against the Infidel; (3) utter severance from all things temporal and earthly, that Allah might be loved and obeyed with unselfish and unquestioning devotion. It was a strange blending of incongruous elements, and one which must have fallen into dissolution with the attainment of any permanent success.

ROBERT ELLIS THOMPSON.

¹A very fine illustration of the difference between the two religious tempers is given in the life of Leighton. When he was still a Presbyterian pastor in Covenanter times, he with others of his brethren in the Presbytery were asked, among other things, whether they "preached to the times." When it came Leighton's turn to answer, he confessed that he had not, but he hoped that with so many "preaching to the times" one poor brother might be tolerated in preaching for eternity.

FORCE.

THERE are among modern scientists wide differences of opinion respecting the nature of force. Many regard forces merely as mutually convertible modes of motion, and embrace in their definition not only mechanical and chemical, but even all vital phenomena. If this be true, then, as far as our powers of conception go, the existence of spirit is a myth; matter is the only real entity possible. At first there appear to be solid grounds for such a faith. The cold iron, by its arrest of the blacksmith's falling hammer, is raised to red heat; one force instantly vanishing, another as instantly taking its place. Is not the second a changed form of the first? Is not the first a motion of mass; the second, a motion of molecules, and thus simply the first distributed? By a parity of reasoning the same conclusions are reached in reference to the other forces. A waste of brain tissue always accompanies processes of thought and decisions of will. What are the latter, therefore, but chemical affinities or electrical forces in other forms; and what are they all in fact but different motions of matter?

Other theorists, while they hold that forces are thus mutually convertible, yet contend that they are different forms under which one and the same spiritual entity makes its appearance. If this be true we may perhaps infer the existence of a God, but it is at best the impersonal god of pantheism; for a permanent personality, or even any, cannot be affirmed of a whole, the personalities of whose parts, by which alone it is known, are confusedly separate and perishable. That personal identity can be destroyed is possible, but to affirm that it is convertible involves an absolute contradiction of terms.

Faraday, in his remarks on the Conservation of Force,¹ says: "There may be perfectly distinct and separate causes for what are called chemical actions, electrical actions and gravitating actions, constituting so many forces; but if the conservation of force is a good and true principle (and this he most emphatically declares) each of these forces must be subject to it; none can vary in its absolute amount, each must be definite at all times, whether for a particle or for all the particles in the universe, and the sum, also, of the three forces must be equally unchangeable. Or there may be but one cause for these three sets of actions, and in place of three forces we may really have

¹Youmans' Correlation and Conservation of Force, page 379.

but one, convertible in its manifestations." In this same paper² he observes that the commonly-received idea of gravity appears to ignore entirely the principle of the conservation of force, and, by the terms of its definition, if taken in an absolute sense, 'varying inversely as the square of the distance,' to be in direct opposition to it." This apparent creation and annihilation of force, however, he thinks science will some day account for, perhaps by the discovery of phenomena proving that the bodies, whose attraction for each other so mysteriously comes and goes, experience exactly corresponding structural changes, and that thus conservation is maintained. But this strange conduct on the part of this, one of nature's most prevalent forces, has occasioned distrust in the soundness of these theories, and a new one has accordingly been propounded, which bids fair eventually to prevail. Professor Tyndall, perhaps its ablest advocate, has left us a very clear statement of it in an article entitled, "The Constitution of Nature" in his *Fragments of Science*. The theory, as I understand it, is briefly this: Of essential causes science has no knowledge, and concerning their nature and ways of working it can safely make no statement. They and their phenomena have, however, been sadly confounded, and the law of conservation has consequently been falsely affirmed of both. All matter is supposed to consist of elastic molecules. When the hammer strikes the bar of iron, the molecules thus forced together rebound and, being again driven in, again rebound; and when this vibratory motion reaches a certain violence our nerves of touch recognize it as heat, and, if suffered still further to increase, it finally affects our nerves of sight, the iron begins to glow. But there is here no exhibition of conservation of force proper, for the motions of mass and of molecules, to which alone the law of conservation applies, are energies, not essential causes; one being the result of several forces, gravity among the number, the other of atomic repulsion. The attraction of gravity constantly increases while the hammer approaches the rod, and reaches its maximum the instant the blow is struck. The increase is a direct creation, so far as science sees. On the other hand, as the rod's atoms are driven together by the blow, a repellent power appears among them which thenceforward constantly increases, until it is able to hurl them back again. This increase

²Youmans ubi supra, page 363.

cannot come from the gravity, for this does not suffer from the collision the least diminution in either hammer or rod. At each oscillation of the atoms force is seemingly both created and destroyed—no one knows how.

Tyndall remarks,³ "When two atoms of hydrogen unite with one of oxygen to form water, the atoms are first drawn toward each other, they move, they clash, and then by virtue of their elasticity they recoil and *quiver*. To this quivering motion we give the name of heat. We must not imagine the chemical attraction destroyed or converted into anything else; for the atoms when mutually clasped to form a molecule of water are held together by the very attraction which first drew them toward each other." He also says in the same essay,⁴ "As regards convertibility into heat, gravity and chemical affinity stand on precisely the same footing. The attraction in the one case is as indestructible as in the other. What is meant in the case of chemical affinity is that the pull of that affinity acting through a certain space imparts a motion of translation of the one atom towards the other. The motion of translation is not heat, nor is the force that produces it heat; but when the atoms strike and recoil, the motion of translation is converted into a motion of vibration, and this latter motion is heat." On the thirty-first page he makes the general statement, "Of the inner quality that enables matter to attract matter we know nothing, and the law of conservation makes no statement regarding that quality." Carefully distinguishing between the effect and the force of gravity, he shows how unconsumed tensions and *vis viva*, the work-producing power of a particle, constitute a constant quantity styled energy, and that to this combination, and to this alone, the law of conservation pertains. Gravity thus explained proves no exception to the rule.

I wish to call particular attention to the ground here taken by Professor Tyndall, for his views are now generally conceded to be those of the most advanced science. He has made the subject a speciality, has published extensive treatises upon it, and his writings are quoted as standard authority throughout the scientific world. According to him, forces are not simply mutually convertible modes

³ Fragments of Science, p. 30.

⁴ Ibid, p. 16.

of motion, neither are they different manifestations of some one force, but are distinct spiritual entities, and are each possessed of an indestructible identity. Of energies and not of forces can convertibility be affirmed. This gives us in inorganic nature, fifty-seven or more individual elemental powers, and however far science peers into the past, it can detect no diminution of that number. The homogeneity of matter and force, then, to which Herbert Spencer so confidently points as the primal state out of which has evolved the heterogeneity of to-day, is all chimera. In the inorganic world there has been no advance from the simple to the complex in the ingredients themselves, but only in their combinations. Those particles which chemists at present call hydrogen, oxygen, carbon, nitrogen, have never been anything else than what they now are; they have been the dwelling-places of precisely the same wonder-working spirits; not a single virtue has gone out from them, not a single virtue has entered in, a thousand million years proving as impotent as a single fleeting second to effect any change. If the evolutionists refuse to accept this theory of Tyndall, and persist in asserting the conservation of force rather than of energy, gravity confronts them insisting on an explanation, and no system of philosophy can long withstand the seemingly direct opposition of a force acknowledged to be thus absolutely universal.

Note how insecure the foundations on which rest the Nebular Hypothesis as presented by its modern advocates. According to the *American Encyclopedia*, it supposes the universe to have commenced as a homogeneous nebula, and to have experienced the following changes: "1st, mutual gravitation of its atoms; 2d, atomic repulsion; 3d, evolution of heat by overcoming this repulsion; 4th molecular combination; 5th, heat set free by this chemical action; 6th, radiation of heat and consequent precipitation of binary atoms forming irregular flocculi; 7th, and finally, a rotary motion induced by gravity acting on these irregular masses.

If at the beginning there was but one kind of matter and but the one force gravity, the latter would have to change a part of itself into atomic repulsion before it could encounter it and thus generate heat. This might rightly be considered a very marvelous feat for a physical force. But even suppose it possible, yet the particles as they approach each other, instead of losing any of their mutual attraction, have it, as we have seen, vastly multiplied. Whence then

comes the atomic repulsion? Indeed, whence the increase of gravity? Here both the initial force is multiplied and another force absolutely created. On the other hand, if it is granted that neither of these forces preceded the other, and that neither could be changed into the other, what hinders us from predicating the same of the balance of the elemental forces.

Not only do the advocates of this hypothesis encounter these perplexities at the outset, but the worlds into which the homogeneous fire-mist is finally rolled present difficulties equally as formidable. If their theory is true, the farther a planet is from the sun, the larger the lighter and the swifter it should be. What are the facts?⁵ Mars is smaller than the Earth, Uranus smaller than Saturn, Saturn smaller than Jupiter, and succeeds immediately to a host of planets which, on account of their smallness, are almost immeasurable. It is true the period of rotation generally increases with the distance from the Sun, but it is in the case of Mars slower than in that of the Earth, and slower in Saturn than in Jupiter. A few pages farther on⁶ Humboldt remarks: "Taking water as the unit of density, Mercury is 6.71; Venus, 5.11; Earth, 5.44; Mars, 5.21; Saturn, 0.76; Uranus, 0.97; Neptune, 1.25; the Sun 1.37." The Sun, instead of being denser than any of its satellites, is but one-sixteenth heavier than Neptune, the outer one, and nearly five times lighter than Mercury, the inner. The comets and the moons of Uranus move in orbits whose planes lie at angles that flatly contradict this theory; and as upwards of seven millions of the former visit our solar system and as they are among the largest bodies known, no hypothesis which their facts oppose can long survive.

The spectroscope, in its examination of hundreds of nebulae, has indeed found many of them to be what their name purports, thin banks of nebulous matter, but without exception heterogeneous in their nature, while at the same time not sufficiently so to render them fit building material for any such worlds as at present exist.

Against the assertion that the universe is without beginning in either space or time, Dr. Robert Patterson has ably urged that a continuous cloud of nebulous light would be overspreading the firmament, were that the case. There would be no blue sky, but one

⁵ Humboldt's *Cosmos* iv., page 425.

⁶ *Ibid*, 447.

unbroken milky way, made up of the blended light of an infinitude of suns. It cannot be argued that it would be impossible for light from multitudes of them to have yet reached us because of their inconceivable distance; for since the rays started out on their journeyings, there has been an equally inconceivable lapse of time. He also remarks that if the universe is without bounds it must be without a common centre. We at once see that in the supposed original homogeneous nebula there must have been as many centres as there were particles. Every particle must have attracted every other equally, and have thus hopelessly prevented that initial motion without which the evolution of the present irregular masses of heterogeneous matter whirling through space never could have occurred. But to grant that the universe has bounds is as fatal to atheism as to concede to it a beginning; for, as the same author observes, if a reason can be assigned why one portion of space is occupied and not another, which in this case the atheist would be forced to do, that reason must show a cause, and that cause must not only have antedated the universe, but have been sufficient to produce it.

Sir David Brewster in his "More Worlds than One," (page 27) remarks, "Mr. Otto Struve and Mr. Bond (Professor at Cambridge, Mass.) have lately studied with the great Munich telescope at the observatory of Pulkowa the third ring of Saturn, which Mr. Lassell and Mr. Bond found to be fluid. They saw distinctly the dark interval between this fluid ring and the two old ones, and even measured its dimensions, and they perceived at its inner margin an edge feebly illuminated, which they thought might be the commencement of a fourth ring. These astronomers are of opinion that the fluid ring is not of very recent formation, and that it is not subject to rapid change; and they have come to the extraordinary conclusion that the inner border of the ring has since the time of Huygens been gradually approaching the body of Saturn and that we may expect sooner or later, perhaps in some dozen of years, to see the rings united with the body of the planet." If this be true, the fact, to say the least, is quite damaging to the Nebular Hypothesis.

Against it also stands the celebrated law of Carnot. Helmholtz, in his *Introaction of Natural Forces*,⁷ thus states it: "Only when heat passes from a warmer to a colder body, and even then only

⁷ Youmans ubi supra, page 228.

partially, can it be converted into mechanical work." An equilibrium, therefore, is constantly being approached, the warmer bodies imparting their heat to the colder; energy under new forms is constantly appearing, but only a part of this can be re-converted into heat, and only a part of the resultant heat can be turned again into other energy. A state of rest is approaching, otherwise perpetual motion would be possible in nature, an achievement, of course, utterly out of the reach of realization; for to illustrate, if a weight by its fall could turn a wheel and the wheel raise a weight equal to the initial one, then that weight would prove to be heavier than itself. Helmholtz⁸ justly claims that in order to have the planetary system eternal the worlds must, first, be solid, and, second, must whirl in perfect vacuum. The behaviour of Encke's comet indicates that the latter is not true; and as to the former, our own Earth is largely fluid, there are signs of water on Mars; indeed the Sun, Venus, Mars, Jupiter and Saturn are held by astronomers to be enveloped by an atmosphere. "The motion of tides produces friction, all friction destroys *vis viva*, and the loss in this case can only affect the *vis viva* of the planetary system. We come thereby to the unavoidable conclusion that every tide, although with infinite slowness, still with certainty, diminishes the store of mechanical force in the system; and as a consequence of this the rotation of the planets in question around their axis must become more slow; they must therefore approach the Sun, or their satellites must approach them." Speaking of the Sun's heat⁹ he remarks that "the inexorable laws of mechanics indicate that their store of force, which can only suffer loss and not gain, must be finally exhausted."

The universe, consequently, must at last become a single mass of motionless matter, unless new energy is introduced into it from without; and if it is true that it is approaching its end, it is equally true that it has had a beginning.

Dr. Bushnell in an article on Progress forcibly argues that common sense itself has been outraged by the theory that the present system of progression extends back in an unbroken series infinitely. However slow the advancement, perfection must have been reached numberless times, for eternity, though past, is no less an endless du-

⁸Youmans ubi supra, page 242.

⁹Youmans ubi supra, page 245.

ration; and what finite ideal could still be unfulfilled, if toward it an infinite number of approaches have already been made? Here and there a thinker apparently foreseeing this dilemma has, as he observes, taken refuge behind the assertion that nature by some law of its own runs in cycles, returning into itself by as many relapses as it makes advances. But this is no real progress; it is simply the monotonous vibration of a pendulum. Humboldt in his *Cosmos* and Spencer in his *First Principles* advocate this view; but the vast majority of the philosophers of this school stoutly deny any retrogression. Emerson in his *Conduct of Life* says, "No statement of the universe can have any soundness which does not admit the *ascending* effort. The book of Nature is the book of Fate. She turns the gigantic pages leaf after leaf, never returning one."

Such are some of the seemingly fatal flaws in the foundations on which evolutionists are still busily building an imposing biological superstructure. To a brief examination of this we now turn.

Max Müller, in his lectures on Darwin's Philosophy of Language, tells us that Professor Haeckel, the most distinguished and strenuous advocate of Darwinism in Germany, claims that in the present state of physiological knowledge the idea of a Life-Giver has become unscientific; that the admission of one primordial form is sufficient, and that that form was a monod, consisting of matter without form or structure, carbon in the form of the white of an egg, of a chemical nature only, and that this monod is the product of self-generation. Herbert Spencer, in his *First Principles*, expressly states, "Those modes of the Unknowable which we call motion, light, heat and chemical affinity, are alike transformable into each other and into those which we distinguish as sensation, emotion and thought, solar heat being the final source of the force manifested by society." It is claimed by this school of Philosophy that appetites and passions are but attractions akin to those of an acid for an alkali; that even actions of will are but chemical changes necessarily accompanying a particular organization of nervous matter. Professor Huxley, also, in an article on the Physical Basis of Life which attracted considerable attention in scientific circles three or four years ago, held that protoplasm, consisting of carbon, hydrogen, oxygen, and nitrogen in complex chemical union, is the very matter and basis of all life. Professor Tyndall in his chapter on Vitality, near the close of his *Fragments of Science*, remarks, "Are the forces of organic matter

different in kind from those of inorganic? The philosophy of the present day negatives the question. It is the compounding in the organic world of forces belonging equally to the inorganic that constitutes the mystery and miracle of vitality. The tendency indeed of modern science is to break down the wall of partition between the organic and inorganic, and to reduce both to the operation of forces which are the same in kind, but whose combinations differ in complexity. Consider now the question of personal identity in relation to this of molecular form." After speaking of the continual waste and renewal of the body, he continues, "How is this sense of personal identity maintained across this flight of molecules? To man as we know him matter is necessary to consciousness; but the matter of any period may be all changed, while consciousness exhibits no solution of continuity. Like changing sentinels, the oxygen, hydrogen and carbon that depart seem to whisper their secret to their comrades that arrive, and thus while the *non ego* shifts the *ego* remains intact. Constancy of *form* in the grouping of the molecules, and not constancy of the molecules themselves, is the correlative of this constancy of perception. Life is a *wave* which in no two consecutive moments of its existence is composed of the same particles. Supposing, then, the molecules of the human body instead of replacing others and thus renewing a pre-existing form, to be gathered at first hand from nature, and put together in the same relative positions as those which they occupy in the body, that they have the self-same forces and distribution of forces, the self-same motions and distribution of motions—would this organized concourse of molecules stand before us as a sentient, thinking being? There seems no valid reason to believe it would not. Or, supposing a planet carved from the sun, and set spinning around an axis and revolving around the sun at a distance from him equal to that of our earth, would one of the consequences of its refrigeration be the development of organic forms? I lean to the affirmative. Structural forces are certainly in the mass, whether or not those forces reach to the extent of forming a plant or an animal. In an amorphous drop of water lie latent all the marvels of crystalline force, and who will set limits to the possible play of molecules in a cooling planet? If these statements startle, it is because matter has been defined and maligned by philosophers and theologians who were

equally unaware that it is at bottom essentially mystical and transcendental.'"

Note the doctrine. Merely molecular force is declared sufficient to account for the evolution of a molten mass into a peopled world. It is denied that vital force exists as an entity distinct from the molecules and their forces which make up the organism. Life is resolved into a *wave*, a *form*, which on the disintegration of the body is gone like a dream; the *ego* consisting simply in a *relation* which *non-egos* bear each other—an empty impersonation, a figment of the fancy. As soon as the testimony of self-consciousness is thus impeached, the mind is at once afloat in a sea of doubt. This doctrine is not only a death-blow to morals and to our hopes of immortality, but effectually undermines the very possibility of any theistic faith, for our conceptions of the Divine nature are alone predicable on those of the human. When Spencer, Huxley, Bain, Tyndall and others of the evolution school thus assert that no impassable gulf separates the inorganic from the organic, that the forces of the one differ from those of the other only as one motion differs from another—that heat or electricity become not only thought, emotion or action of will, which are simply the phenomena of the *ego*, but the very *ego* itself, by changing the motion of identically the same matter—we must hold them to accurate experimental demonstration; for, as, as we have said, the doctrine is a death-blow to everything noble in aspiration or hope.

It seems to me that Tyndall has unconsciously suggested a most powerful argument against the soundness of his own conclusions. He has championed the theory that the forces in the inorganic world are entities, not mutually convertible, maintaining their individuality intact under all circumstances; that only energies are interchangeable. What hinders the same discrimination being made in the realm of vitality between energies and forces, the one being simply convertible motions, the other being inconvertible entities, concerning whose nature science can safely make no statement? As far as I can see, precisely the same arguments apply.

Dr. Carpenter, in his article on the Correlation of Physical and Vital Forces,¹⁰ states that "the best physiologists of the present day separate into a distinct category vital phenomena, claiming them to differ *in kind* altogether from those of physics or chemistry." They

¹⁰ Youmans ubi supra, page 402.

are produced by what he styles germinal capacity, an inherent hereditary power within the germ, an agency whose office it is simply to direct in the use of light, heat, electricity and the other elemental energies, and thus by their help build up matter into an organism answering to an ideal given it. The vital force is supposed not to supply a single particle of energy, but only to turn into its own individual channel a portion of what it finds outside. The Arabian romance of the slave-genii and Aladdin's lamp here finds its realization. While the physical and chemical forces are subject to the vital, the resulting energies assume entirely new features; but so soon as the spell is broken they become as before. When molecules enter the organism, they part with none of their molecular forces; when they go out from it they leave none behind; while in it those forces continue as operative as ever, being simply directed, for the time being, by some separate, superior force; for so soon as it is gone at death's coming, they straightway set themselves at work to tear down what they have until then been forced to build up and maintain. These elemental genii are no willing servants to the lamp, but slaves rather, ready, when released, for riot and ruin.

As Dr. Carpenter stands in the forefront of science, and may be said to speak *ex cathedra* on a theme of such transcendent interest, it will be well for us to note with especial care the ground he has taken. These are his words¹¹: "If in the first place we inquire what it is that essentially distinguishes vital from every kind of physical activity, we find this distinction most characteristically expressed in the fact that a germ endowed with life develops itself into an organism of a type resembling that of its parent; that this organism is the subject of incessant changes which all tend, in the first place, to the evolution of its typical form, and, subsequently, to its maintenance in that form, notwithstanding the antagonism of chemical and physical agencies which are continually tending to produce its disintegration; but that, as its term of existence is prolonged, its conservative power declines so as to become less and less able to resist these disintegrating forces, to which it finally succumbs, leaving the organism to be resolved by their agency into the components from which its materials were originally drawn.....That condition, which is inherent in the organism, being derived hereditarily from

¹¹ Youmans *ubi supra*, page 407.

its progenitors, may be conveniently termed its germinal capacity, its parallel in the inorganic world being that fundamental difference in properties which constitutes the distinction between one substance, whether elementary or compound, and another."

Herbert Spencer not only affirms that all the multiform varieties in inorganic nature have been evolved from strict homogeneity, but he most positively states that the same is true of the still greater diversities in the realms of life. In his collection of *Essays of Progress* (page 2) he says: "In its primary stage every germ consists of a substance that is uniform throughout both in texture and chemical composition." Whence then the succeeding heterogeneity? we may ask. It is surely not the result of any one physical or chemical force, for if science has proved anything it has proved that a simple element, as gold or oxygen, has no power to change itself, or to undergo change, by being mixed only with its like. Then some force separate and superior must be at work. But to grant this would be fatal to his philosophy, for the germinal substance cannot be homogeneous if two or more forces are lodged with it. Turning again to Tyndall's *Fragments of Science*,¹² we find how entirely gratuitous is this statement of Spencer, although it is one of the foundation stones in his system of thought.

"When the contents of a cell are described as perfectly homogeneous, as absolutely structureless, because the microscope fails to distinguish any structure, then I think the microscope begins to play a mischievous part. Have the diamond, the amethyst, and the countless other crystals formed in the laboratories of nature and of man, no structure? Assuredly they have: but what can the microscope make of it? Nothing. It cannot be too distinctly borne in mind that between the microscope limit and the true molecular limit, there is room for infinite permutations and combinations."

Science has thus far also proved powerless to settle satisfactorily the question of spontaneous generation. Many very ingenious experiments have been made, revealing new truths in biology, but resulting only in strong presumptions respecting the point at issue; and of these each party manages to secure about on equal share. Positive demonstration remains yet unattained. Huxley in his *Origin of Species* says, "Nobody has yet built up inorganic matters into living, organized protein; and I suppose it will be a long while

¹² Page 152.

before any one does. A distinguished foreign chemist contrived to fabricate Urea, a substance of a very complex character, which forms one of the *waste* products of animal structures. Of late years a number of other compounds, such as butyric acid and others, have been added to the list. I need not tell you that chemistry is an enormous distance from the goal I indicate." But Huxley seems quite hopeful that it will some day be attained. All of what was supposed to be spontaneous generation has been found to come from minute spores or eggs floating in the atmosphere, which heat would not kill or which would lodge in cotton wool if placed in the mouth of the flask containing the prepared liquid. The air is full of "germ dust." Huxley gives a very interesting history of the attempts of chemists in this direction, showing how that, on close examination, in each were found fatal defects. A fluid preparation was shut from the outer air, as it was thought, by being inverted in a bed of mercury, and after a while infusoria appeared; but it was afterward discovered that the mercury was fairly saturated with spores. A bottle was filled with boiled milk, and the neck stopped with cotton wool, with the same result; on further examination it was found that the alkaline in the milk protected the spores from the effects of the heat. The milk was made ten degrees hotter, and no animalcules appeared. M. Pasteur finally filled a vessel having a long S-shaped neck with an extremely decomposable substance. This he boiled and left the bottle open. No life appeared, the eggs from the outside air being deposited, as afterward found, in the beginning of the bent neck. The tube was then cut off near the vessel, and in forty-eight hours life developed. These and other like tests Huxley regarded as settling the question that at the time of his writing no instance of spontaneous generation had yet come to light. Dr. Bastian, who has indeed proved himself both earnest and able in this field of inquiry, has lately issued a second work in which he claims that he has beyond all doubt produced life from chemical action solely, but even his most careful experiments are found far from conclusive. Grant that after he had so bottled some prepared liquids that he had to all appearance wholly excluded the outside air and that then he had subjected them to temperatures reaching as high as 150° degrees C., and that when the mixtures cooled they swarmed with life; yet this may but serve to prove that eggs when lodged in some mixtures will resist greater heat than in

others, the absolute limit of such resistance being still a matter wholly undetermined. It was supposed that the fact that inside unfertilized eggs infusoria had appeared, settled the matter, until some prying individual announced that he had discovered the spores of infusoria deposited in the hen's ovary. The editor of the *Atlantic Monthly*, in a brief review in the December number, 1873, showing the present status of the discussion, points out how inconclusive as yet are even the most successful experiments.

We must for the present defer following further the doctrines of evolution. One word in closing. While the ancients believed that everything was God, many modern theorists are seeking to exclude God from everything. There is a golden mean of belief, between the poetic pantheism of the past and the materialism of to-day. The overshadowing presence of mystery gave birth to the one; the partial solution of it, the other. A more thorough investigation will exhibit alike the weakness and the strength of both. What lies back of gravity, chemical affinity, crystallization, organic life, brute instinct and the human intellect, still keeps itself closely veiled. On questions touching the origin, the nature and the ultimate destiny of the physical and vital forces, science is gradually growing conscious of her limitations.

WM. W. KINSLEY.

FROM THE NOTE-BOOK OF AN ISHMAELITE. II.

NOTHING so exemplifies the vigor of the human intellect as its power to react against popular idolatries, and to swing itself into new lines of movement which are exactly the opposite of those it has been following. And no more notable reaction has occurred in our century than the revival of Pessimism. I say *revival*, for Pessimism was the primitive creed of mankind so far as it had any conscious theory of the Universe, and our popular Optimism is the product of reflection and loose reasoning within a sophisticated civilization. Our old Teutonic and Scandinavian forefathers were pessimists; they saw all around them a conflict between good and evil, between light and darkness, and they foresaw the victory of the latter. But with full prevision of that

victory, they held to the losing side, as the only side for a man to hold to. Their mythology closes with the cry "Balder is dead," and with the wail of gods and men over the desolation of heaven. And the most outspokenly pessimistic creed that the world has ever known is also the most popular. Buddhism, which found in every part of Eastern Asia a hearty welcome as an escape from the soulless, formal and official religions, like the Shintoism of Japan, into a higher region of freedom and spirituality, is itself the most dismal of beliefs. It teaches that existence itself is the curse of mankind, and the escape out of existence into nothingness the only salvation. Schopenhauer and Edward von Hartmann have merely translated Buddhism into the language of Western philosophy, and offered it as wholesome food to a generation sick of the optimistic sweetmeats of the popular philosophies. Ever since Hegel discovered that "the actual is always rational," and in that discovery crowned the edifice on which thousands had been laboring for centuries, Germany heard nothing but the deification of the Universe, as itself in some sort the Absolute and Perfect. The apotheosis became nauseous when its litanies were repeated with endless iteration by smaller men. There was thus a certain preparedness for the new school, which bedevilled all things with as much energy and still more eloquence. The school of Hegel has itself furnished the best disciples for Schopenhauer, and this gloomy philosophy—*die moderne Weltverteufelung*, Edmund Pfeiderer calls it—has become the fashion of the day. There are signs of its spread to France, England and America, where Pessimism has always been a sentiment among the poetical admirers of Byron, Poe and Baudelaire, but has never attained recognition as a philosophic doctrine. Yet even in England and America it has had its forerunners in the orthodox Political Economists, and among those theological Millenarians who regard the present condition of the earth as one of rapid moral degeneracy. Emerson also, with his declaration that "there is a substratum of ferocity in the universe," seems not so far from Schopenhauer's "*Welt als Wille.*"

To the Pessimist, Asiatic or European, life is a bad dream whose fundamental fallacy is the delusion of individuality. Every act that involves the will to be or exist is an evil act; every act that tends to self-mortification, to the annihilation of the individual, is a good act. But suicide is not a good act, for to man death is not the end

of individual existence. After exhausting life of its worth and significance, the Pessimist gives us a cheap immortality by the extension of this worthless life into the indefinite future.

The creed will never be exactly popular, but it will probably have many adherents among English-speaking people. Melancholy is in the blood of the Teutonic race, and upon every sort of constitutional melancholy Pessimism builds itself. About one-third of us have passed periods of greater or less length in which utter annihilation seemed the best boon that heaven could send us. Christianity has been fighting this fundamental tendency to gloom for a millennium, and with a fair degree of success. But as new questions and new sympathies move the thoughts of the peoples, and as the theologians meet these with answers which seem to make Christianity only an inconsistent Pessimism—a creed that commands men to “Rejoice always” and yet deepens the shadows of the moral universe to us—the Christian religion becomes an influence in the opposite direction to that in which it affected our forefathers. They clung to it as a release from the natural gloom which overhangs life—as a revelation of better things than they had dreamed of. “So seems the life of man, O King,” said the Northumbrian Ealdorman, “as a sparrow’s flight through the hall when you are sitting at meat in the wintertide, with the warm fire lighted on the hearth, but the icy rain-storm without. It flies in at one door, tarrys for a moment in the light and heat, and then flies forth from the other into the wintry darkness whence it came. So tarrys for a moment the life of man in our sight.” And, therefore, they listened to the message of One whose presence was a light and a warmth that embraced all worlds, and made the earth’s light and warmth the symbol of a greater blessing whose bounds none could set. But now we are told that Christianity means a sort of individual insurance against the dreadful possibilities of a universe which has, as Emerson says, a “substratum of ferocity” in it.

What a frightful misfortune it will be for the race when the whole surface of the globe shall have been explored, described and catalogued by our geographers! Imagination will be cramped, and the interest in dear Mother Earth will become weak and paltry in comparison with what it was in the grand old days before the Colum-buses and Magellans began to exercise their impertinent curiosity.

We shall have come to know all the possibilities of our planet, and no longer to look forward into the darkness with awe or excitement. Even now the unknown spaces left on the map have a sort of melancholy interest for a well-regulated mind. There are bits of Siberia to which I feel an attachment not unlike that which I cherish for the old stone farmhouse in which I was born, and the "sunny spots of greenery" around it, in which the happiness of childhood found scope. Such places are the lands of *may be*; the dear spots where the sacred depths of nescience have not been fathomed. And as we love our friends partly because of our faith in possibilities of character never as yet realized, so our love for this, our oldest friend, associates itself with the regions of the unknown on her surface. There is a good as well as a bad sense to the saying, *Omne ignotum pro mirifico*. The poetry of the world, in one of its most cherished forms, connects itself with this feeling. You would rather diminish from the popularity of the Arabian Nights than add to it, by prefixing to them a careful description of Bagdad and its people under the reign of Haroun the Just. And what is the source of the thrill with which we read Coleridge's poem which begins—

In Xanadu did Kubla Khan
A stately pleasure-dome decree:
Where Alph, the sacred river, ran
Through caverns measureless to man,
Down to a sunless sea—

if it be not the mysterious remoteness of the unexplored surroundings? Similar is the feeling excited by the single line in the Fool's song in Lear—

Childe Roland to the dark tower came—

a feeling which Browning has managed to expand and intensify by his poem in *Men and Women*, taking care not to remove an atom of the mystery.

And our scientific Philistines march right on to disenchant the most outlying and unprofitable places—lands that might have been spared for the growths of fancy, since they will grow nothing else. There are Nordenskjold and his Swedish associates attacking even Siberia; and after seeing the man at the Exhibition, I begin to fear he will not leave much of those dear old arctic districts unexplored when he dies. Thus does the sacred thirst for knowledge burn in the civilized breast. That a thing is, is a reason why it should be

known, searched out, explored, described to the perception of who-so will know of it. "It should be known," the logic runs, though to supply all the links of the reason would puzzle anybody. But to one who knows both the telescopic and the microscopic extent of the universe, the vastness of possible knowledge must be an overwhelming thought, in hours not distracted by activity in reaping some new fragment of it. And if there be no infinite mind capable of grasping it in both directions, the whole can never be known; cannot even be—as some one says—truly a *universe*; cannot be one thing to any one mind.

Vanity and bashfulness are but two growths of the same root, an undue self-consciousness. Backward or shy people are generally such from the lack of simplicity, not from the excess of it. They are aware of a possible difference between your and their own estimate of themselves, and this makes them uncertain of their footing with you.

A mind perfectly sane on this point ceases to think of self in society, because settled in its own self-respect and on sure grounds. But a mind unsettled on this point perpetually vibrates between what seem opposite extremes, both of which lie of necessity within the arc of its movement. Distrust all bashfulness in grown persons who have had ordinary social advantages, as a sign of self-conceit.

The prevalence of self-conceit is like the practice of smoking tobacco, a great deduction from the capacity and energy of the race. Dr. Thomas Arnold goes so far as to pronounce it the root of every sort of mental weakness and incapacity. Great men are generally simple and self-forgetful; and as a rule young men begin to be worth something when they have quietly buried their own dreams of greatness and success in life. Life deals with us roughly, giving us many a rude shaking by the shoulders; but it is generally for our good. It knocks the nonsense out of us, and leaves room for the sense.

Our spelling bees have culminated in a Convention for the reform of our orthography by the introduction of a phonetic system. All the decimal system people should be expected to belong to the organization which has grown out of the Convention, or else should be asked their reasons for refusing. It seems to me that all

the reasons which favor the substitution of grammes and metres for pounds and yards, apply with equal force to the substitution of *nollej* for knowledge and *thru* for through. If not, why not?

Mark Twain recently put in a plea for the good old times when the rules of architecture were strict and those of orthography optional. He remarked that Bacon, Shakespeare, and their contemporaries, each spelled after their own fashion; and that it was much better that each writer should give somewhat free play to his own idiosyncracies, than that all should be tied down to a dead uniformity on this point. Yet Mr. Clemens, like every body else, bows to the authority of the school-master, and spells in accordance with orthodox orthography. The only notable dissenter in practice was Archdeacon Hare, who sought to revive the orthographic canon of the seventeenth century, as better than that of the nineteenth. Hence his phonographic spelling of many past tenses and perfect participles, such as *accomplisht*, and his rejection of the ordinary spelling of some words (such as *sovereign* instead of *souvan*) as based on false etymologies. His essay on the subject, published in the *Philological Museum* in 1832, shows on what slight and narrow foundations our traditional orthography rests. He especially shows that Milton, who had given no small amount of attention to the subject, used an orthography fully sanctioned by all his best predecessors in English style, but in many points utterly different from that now in vogue. The ordinary editions of Milton's works get rid of these peculiarities, and reform nearly everything to the modern usage; but in Pickering's very exact reprint of the first edition of *Paradise Lost* (1873) the original forms of spelling strike the eye at once. Thus, he has *rowle* for *roll*, *perfet* for *perfect*, *thir* for *their*, *voutsaft* for *vouchsafed*, *fluts* for *flutes*, *anow* for *enough*, *intrans't*, *glimps*, *hight*, *maistring*, and many others; and that he had given thought to the subject is evident from the list of *errata* in which *hundred* is changed to *hunderd*, and *we* is corrected into *wee*, this latter evidently for the sake of emphasis, as the pronouns *we ye, he, she*, occur with both spellings in the poem, and as the double *e* seems to be used always where the word is emphatic.

The American substitutions of *ic* for *ick* except in monosyllables, and of *or* for *our* in the ending of many words, are the only innovations which have obtained general acceptance even on this side the ocean. The spellings *center* and *theater* still linger in a few

printing offices to which the better sort of public opinion has not found access; but there is no reason to suppose that they will ever succeed in establishing themselves in the usage of educated men. The chief reason against them is that they logically involve the whole phonetic theory and system; for if we substitute *center* for *centre*, then we must go on to spell able *abel*, and then where are we to stop? We would exchange one wretched bondage to the letter for another still more wretched and less historical.

The next great centennial celebration is to be that of the fourth centenary of the establishment of printing in England by William Caxton, in 1477. A much greater, but utterly neglected benefactor of the race, was the man who invented rag-paper. Printing was quite within the mechanical capacity of the Egyptians, Greeks and Romans, and they would certainly have "invented" it had it been worth their while. The man who devised a method of supplying a great quantity of surface capable of receiving a written or printed impression, made the invention of printing merely a question of time. But so long as the world had nothing but the very limited supply furnished by parchment and the papyrus plant, the printing press could be of no use to it. The invention of paper of course long preceded its manufacture in any large quantity, and the two centuries or more that intervened between the two inventions was probably no more than was needed to bring the first of the two to such perfection and popularity as led to the second. The oldest known document on paper bears the date 1329, but it is said that the Escorial library contains some of the previous century.¹ As to its introduction into England, the late Toulmin Smith says: "The introduction of specimens of linen paper into England is known to have happened in 1342, possibly earlier. Some letters from abroad during that early time are written on linen

¹ Our contributor is not quite correct as to the antiquity of paper. The Sarcens learnt from the Chinese the art of making it from cotton, and had a factory at Samarcand in 706, A. D. And an Arab physician, in his account of his visit to Egypt, A. D. 1200, speaks of the linen cloths in which the Egyptian mummies were wrapped as used to make wrapping paper. The Sarcens brought the art into Spain. In a monastery in upper Styria is a paper document, written in A. D. 1240, and purporting to be a mandate of the Emperor Friedrich II.

paper; and there is a Register-book which belonged to the Black Prince [ob. 1377] which is of linen paper.....There was at least one paper mill in England as early as Henry VII." "Linen paper was used in public offices in London, and also used by some of the country gentlemen, who were then sheriffs of distant shires, at the end of the fourteenth century." He found among the national records a bundle of writs issued from the Royal Chancery to the Sheriffs of the Kingdom, with the returns appended or endorsed, and in closely examining some that had been written at the date specified, he discovered that they are written on a sort of parchment paper, which was evidently home-made. "It is of the color and stoutness, and has the general appearance of parchment; but the wire-marks of the linen fabric that forms its basis are to be seen on a careful examination. It is, however, so like parchment, that an ordinary handling of it would not lead to the supposition that it is not parchment, and like the rest among which it is found."

Shakespeare, with his usual historical accuracy, makes Jack Cade refer to both printing and paper-making as introduced into England in the reign of Henry VI., which is a reign too soon for the former, and two reigns too late for the latter. These dates indicate a pretty rapid spread of the invention through Europe; while even in our times, the lettered class are slow to adopt improvements from abroad. Take for instance that excellent German invention, the double title-page, which has been adopted nowhere else, except in a few cases for an edition of an author's collected works. Our public documents are in the sorest need of it. For instance, it is all but impossible to arrange, or catalogue, the valuable volumes of Hayden's Survey of the Territories. The title-page of each of its parts is a puzzle and a distraction to librarians, whereas a little care in the preparation of double title-pages would have reduced the chaos to an admirable order.

J. D.

HENRY C. CAREY IN GERMANY.¹

IN a short essay, Baron William von Kardorff-Wabnitz, a member of the Imperial German Parliament, sets forth his reasons for advocating Mr. Carey's theories, and urges their adoption in the practical working of trade, finance, and tariff, instead of the present fashion of English free-trade doctrines. He endorses Carey's laws of national wealth as applicable to the existing state of affairs in Germany, and he urges the study of Carey's works, instancing the fact of his own conversion from Free Trade to Protection, as one of the first fruits of reading Carey's *Social Science*. The strong position held by Mr. Carey in Germany and Russia is attested by this little essay, with its constant reference to the frequent use of Carey's theories and proofs in all discussions of the important questions treated by him in his well-known volumes. The author boldly declares himself in favor of maintaining a Protective Tariff based upon that which was for years common to Russia, France and America, and urges the example of these countries, and the success of their national industries in time of high protective duties, as a reason for renewing them in Germany, so as to restore its old prosperity.

A few years of an energetic system of protection served to establish the fame and use of American agricultural machines and railroad cars through the world.

France has withstood the results of a disastrous war, and has reestablished its trade and its manufactures on a greater scale than ever, by keeping up its system of Protection, and leaving to a few theoretical professors the luxury of believing in Free Trade. Our German economist contrasts sharply the theories of Adam Smith and Henry C. Carey as to the wages of labor, and cites, with great emphasis, the rule laid down by Carey, that the wages of labor always advance faster than the profits of capitalists. He urges on the German farmer the invariable truth that protection to native industry means a gain to the farmer, who can sell his pro-

¹ GEGEN DEN STROM! Eine Kritik der Handels politik des deutschen Reichs an der Hand der Carey-schen Forschungen, von Freiherr *Wilhelm von Kardorff-Wabnitz*, Berlin, 1875. Verlag von Julius Springer. [Against the Current! a review of the Tariff Policy of the German Empire in the light of Carey's Discoveries.]

duce to workingmen at hand, as well as to the manufacturer, who in his turn secures good workmen when he can get them cheap food. He shows that Germany has lost the exportation of grain to England, which draws its supplies from Russia and America; that German wool has been driven out by colonial wool; that rape seed has surrendered to petroleum; that foreign countries have practically excluded German spirits; that these and other harsh conditions have proved unfavorable to German agricultural industry, which has been still more depressed by the growing importation of cloth, and woolen goods, and iron ware, all of which could and ought to be made at home. Germany imports seventy-five millions of agricultural products, which she ought to raise within her own borders. The very land-holders have brought this about by their Free Trade doctrine, and by their hostility to manufactures, with the invariable result of reducing the land-owner from his apparent importance to the lesser but more useful task of a food supplier to the factory hands, the real wealth-producers of a country. Even the serious question of "strikes" is more likely to be solved by a steady system of protection, than by irregular and fitful changes from high to low wages, or back again.

Our German tariff man seconds heartily all of Mr. Carey's views as to the system by which Great Britain built up its present overwhelming strength in textile and iron industries; shows that even now foreign goods pay fifteen per cent. duty in the colonies, while English wares pay only five. He adopts Mr. Carey's rule that cheap production depends, not on cheap labor, but on amount of production, certainty of market, and cheap and constant supply of raw material. He points out the advance in American textile industry in contrast to the falling off in Germany, and shows that the Tariff which has done this, can and ought to be maintained, and do even more. In iron, too, while Germany imports yearly four millions' worth, it can hardly be said that over-production makes its manufacture unprofitable. The same protection which has made America independent would give Germany, too, control of its own supplies of iron. France, with its high duties, is in a more flourishing condition than any country that has adopted Free Trade. Even England, with its boasted free list, shows in its dealing with the duty on spirits a shrewd sense of how and when to protect. There is, it is well known, a drawback or premium on exporting spirits made in Eng-

land, and there is also a positive prohibition on foreign spirits, for they cannot be methylated, although English spirits used in the arts are free, and receive back the duty paid on them. As half the production is thus used, English spirits pay only half the tax, while the foreign have to pay the full amount levied, no matter to what use it is put. When a foreigner asks why this should be so, the English free trader tells him that native spirits are always dearer than foreign, but the trade is too profitable to be given up for the sake of a theory.

The persistency with which England enforces its Free Trade policy at the expense of the other nations and of its own colonies, is marked by evils that show the unsoundness of its whole financial theory. Capital and labor are growing daily more estranged; class distinctions multiply and increase; the middle class is fast disappearing both in agriculture and manufacture; of two hundred thousand land-owners in Adam Smith's time, only thirty thousand are found to-day; the country is losing and the towns gaining in population; the spirit of trade and the passion for industry have cost and are daily sacrificing national pride, until instead of being the mistress of the seas, England depends on Russian favor for her East India possessions. For the working of Free Trade and Protection in other countries, the author draws his illustrations from Carey's volumes as the source of the soundest knowledge on the subject. The fall of Turkey dates from the time when England and France obliged that unfortunate country never to impose a higher duty than three per cent. on their goods, and thus destroyed native industry only in turn to levy fresh taxes, in the vain hope of recouping the English holders of Turkish bonds. Portugal is another illustration of Free Trade. Even Germany has its own special example in Mecklenberg, which is full of all the mischiefs that illustrate the working of Free Trade. With Mr. Carey's examples drawn from our own experience in the United States, we are all but too familiar.

In Russia, in spite of all the disadvantages of its old system of serfdom or peonage, the results of a wise protective system have been surprising, industrial and manufacturing activity steadily and rapidly increasing, railroads and canals covering the whole vast empire, the export of Russian products increasing, the imports of iron and textiles on the decrease, advancing wages, improving prices of land, fall of interest, extension of credit, a growing reserve of gold and silver, all symptoms of national advance and

prosperity. But most of all is France the country that attests the truth of Carey's theories. After various experiments in the interest of Free Trade, France has adopted a protective system that is practically prohibitory; and the result is improved wages, favorable balance of trade, plenty of gold and silver, increase of crops, advance in the price of property, diminishing rate of interest, large plans of national improvements set on foot;—and this after paying a war debt of ten milliards and losing two provinces.

Turning now to Germany, the author traces the history of its tariff legislation, and shows that Protection enabled it to pay off its old war debt, to develop its national wealth, to secure German ownership of foreign industries, to supply the country with good roads and afterwards with railroads, to improve agricultural returns and of course the value of land throughout the country, to secure a steady rise in wages and a steady fall in interest. Even the poor provinces of the east became rich as granaries for England, and Silesia, Westphalia, the Rhine land, grew great in iron and textile fabrics, and German woolen goods, cotton goods and linen were exported largely, while the government industriously sought to secure fresh markets by reciprocity treaties. The development of national internal industry was rapid, sound and successful, and it brought with it all the fruits of a sound and wise policy. Now Germany has been turned toward Free Trade, and it threatens to do her a lasting injury by inflicting the usual results upon capital, labor, agriculture and all the allied forces of a great industrial country. The success of the advocates of Free Trade will undo all the great achievements of the soldiers and statesmen who made the Germany of to-day, for it will take away the power to hold together the resources of a great country, and will reduce it to the condition of the other victims of the modern English passion for Free Trade. To meet the views advanced by the German advocates of the Manchester school of political economy, one of their opponents in their own Parliament knows of no better guide than Henry C. Carey, and from his volumes draws the arguments and the proofs with which he meets the Free Traders. It is an interesting example of the far-reaching effects of a sound economical philosophy, and it bespeaks a higher praise of the work done by Mr. Carey, than any mere fulsome eulogy. It shows that his writings are an arsenal of truth, from which all who wage war against industrial error can get their arms, and go forth hopefully to do battle. J. G. R.

NEW BOOKS.

TWO YEARS IN CALIFORNIA: By Mary Cone; with Illustrations. Chicago. S. C. Griggs & Co., 1876.

California has not yet lost its interest. The golden haze which surrounded it has brightened into the light of civilization. The traveler, as a rule, no longer enters it through the Golden Gate, but across those mighty mountain barriers which once fenced it in from the rest of the world, but which science and energy have now over-leaped.

It is no longer *El Dorado*, but instead, a land flowing with milk and honey, whose wonderfully diversified climate and always fertile soil brings forth all the productions of the temperate zone, with many of the torrid; whose scenery embraces sea, mountain, and valley; the land of the Yosemite and the giant trees.

Miss Cone has had good opportunities of knowing California throughout its length and breadth, and has improved them. In a systematic manner she takes up its history, geography, climate, social state, etc., giving a clearly written and interesting account of everything, abounding in statistics very acceptable to the casual reader, and which the sojourner, either for health or pleasure or profit, will find useful.

To hazard a conjecture as to the authoress, we should pronounce her to be, or to have been, a school-mistress. Her writing has a didactic tone, a mingling of amusement and instruction, with an occasional moral reflection, which the thoughts of one accustomed to train the young idea, well and faithfully withal, would be apt to assume. If a member of this much-respected class, though, she should be taken strictly to task for various blemishes in her style, such as the too frequent use of words ending in *ness*. On page 80, we find "healthfulness," "nearness," "greatness," "thankfulness," "richness," "perfectness," "transitoriness;" and the production of such slipshod flippancy as "the olive, too, seems to be in *as good as* its native element in this region" (p. 82); "causing the rarefied air to rise and *hurry away*" (p. 18); "when the wind disturbs the surface of the water, as it almost always *contrives* to do" (p. 101); "the way is slippery and the slime is *ghastly, supernatural, infernal*" (p. 157); "a certain person in whom the writer has a *first class interest*" (p. 164).

There is a constant and very ill-advised use of quotations, many of them trite, and some unmeaning. On the other hand, the descriptions, of scenery especially, are clear and vivid; the narrative is lively, with a touch of humor, a little forced sometimes; and the writer looks at all sides of her subject in a manner which gives a clear understanding of it.

The Chinese have a chapter devoted to them, in which the effect

of their advent on the material interests of the country is declared to be good. The writer gives some historical facts about China, and a brief account of Confucius. "China," she says, "furnishes the sole and only example of a nation that has worked out its own salvation from barbarism, and come up unaided into the light of civilization." For this statement she gives no authority—indeed, quotes Niebuhr to the contrary; and it seems to involve a double assumption; first, that any nation has ever done thus, and second, that the Chinese alone have. We were not aware that "the world's history" had a single instance of any community or people which, without the aid of others more enlightened, progressed in any degree from barbarism toward civilization. Of the good qualities of the Chinaman as a laborer we are somewhat cognizant, even in this part of the country; but the important question which the States on the Pacific coast, and indeed all the States, have to determine, does not touch this point, but concerns the effect on the industrial, social and political system of communities, of an immense and sudden influx of Chinese—a matter infinitely more important, but to which the authoress has paid very little attention.

Miss Cone has described the Yosemite Valley rather better than any one whose account we have yet seen. So the other places specially mentioned. She illustrates very happily the charms of Santa Barbara, by the story of the preacher who, holding forth there, felt it incumbent on him to remind his hearers that, as they could not always stay in that abode of delight, they would do well to prepare themselves to go to heaven, which he took pains to describe as equally attractive.

The mechanical execution of the book is good, and it has that invaluable adjunct to a book of travels—a good map.

DARWINIANA: ESSAYS AND VIEWS PERTAINING TO DARWINISM. By Asa Gray, Fisher Professor of Natural History (Botany) in Harvard University. D. Appleton & Co., N. Y.

Although American bibliographers have not been forced to make a separate department for works on Darwinism, corresponding to that entitled "Darwinismus," which is found in most German book catalogues, still publications on the subject have been with us neither few nor uninteresting. We are therefore not surprised at the title "Darwiniana," prefixed to a series of essays by Prof. Asa Gray, the Harvard Professor of Botany.

In these thirteen essays before us, of which all but the last have already appeared in print, he discusses a variety of questions involved in or closely connected with the origin of species by natural selection. The larger question of evolution, as a system of philosophy, which has in a manner swallowed up the scientific theory of the origin of species, and has replaced it in the minds of many, he does

not wish to discuss at all. His own personal views, indeed, he distinctly gives in opposition to "English positivism and kindred forms of materialistic philosophy," which have taken up the derivative theory in their interest. In the preface he defines himself as "one who is scientifically and in his own fashion a Darwinian, philosophically a convinced theist, and religiously an acceptor of the 'creed commonly called the Nicene,' as the exponent of Christian faith." In accordance with this position, he devotes much space to showing that Darwinism is not necessarily atheistical. He proves that it can be accepted equally readily from a theistic standpoint; and, accepting it thus himself, he goes farther and shows that this theory can contribute many elements of strength to the argument for design used in natural theology. From his final paper on "Evolutionary Teleology," a very able discussion of this question, we make an extract illustrative of this. "By the adoption of the Darwinian hypothesis, or something like it, which we incline to favor, many of the difficulties are obviated and others diminished. In the comprehensive and far-reaching teleology which may take the place of the former narrow conceptions, organs and even faculties, useless to the individual, find their explanation and reason of being. Either they have done service in the past, or they may do service in the future. They may have been essentially useful in one way in a past species, and though now functionless, they may be turned to account in some very different way hereafter. In botany several cases come to our mind which suggest such an interpretation."

His acceptance of Darwinism, as already stated in his own words, is a qualified one. This is his characterization of it: "We are disposed to rank the derivative hypothesis, in its fullness, with the nebular hypothesis, and to regard both as allowable, as not unlikely to prove tenable, in spite of some strong objections, but as not therefore demonstrably true. Those, if any there be, who regard the derivative hypothesis as satisfactorily proved, must have loose notions as to what proof is. Those who imagine it can be easily refuted and cast aside must, we think, have imperfect or very prejudiced conceptions of the facts concerned and of the questions at issue."

The attitude of working naturalists towards Darwinism is the subject of a very interesting paper, from which the following statement is taken: "Considerations such as these, of which a few specimens have now been adduced (not general speculations, as the unscientific are apt to suppose), and trials of the new views, to see how far they will explain the problems or collocate the facts they are severally dealing with, are what have mainly influenced working naturalists in the direction of the provisional acceptance of the derivative hypothesis. They leave to polemical speculators the fruitless discussion of the question whether all species came from

one or two, or more; they are trying to grasp the thing by the near, not by the farther end, and to ascertain, first of all, whether it is probable or provable that present species are descendants of former ones which were like them, but less and less like them the farther back we go."

In this same paper, certain fierce opposers of Darwinism are thus quieted: "Those defenders of the faith are more zealous than wise who must needs fire away in their catapults the very bastions of the citadel, in the defense of outposts that have become untenable. It has been and always will be possible to take an atheistic view of Nature; but far more reasonable, from science and philosophy only, to take a theistic view. Voltaire's saying here holds true: that, if there were no God known, it would be necessary to invent one. It is the best, if not the only hypothesis for the explanation of the facts."

In our opinion, essays of this character will do much towards obtaining a respectful hearing for Darwinism with all classes of thoughtful readers, and for this reason we welcome them, and thank Prof. Gray for the service he has done.

BOOKS RECEIVED.

Our Mutual Friend. By Charles Dickens. Condensed by Rossiter Johnson (*Condensed Classics*). 18mo., cloth, \$1.00. Pp. 350. New York: Henry Holt & Co. [Porter & Coates.]

Mutual Criticism. 16mo., paper, 25 cents. Pp. 96. Oneida, New York: Office of the American Socialist.

Fallen Fortunes. By James Payne. 8vo., paper, 75 cents. Pp. 223. New York: D. Appleton & Co. [Porter & Coates.]

Heroines of Freethought. By Sara A. Underwood. 12mo, cloth. Pp. 327. New York: Charles P. Somerby. [J. B. Lippincott & Co.]

Captain Sam. By George Cary Eggleston. 12mo., cloth, \$1.50. Pp. 217. New York: G. P. Putnam's Sons. [Claxton, Remsen and Haffelfinger.]

Boys of Other Countries. By Bayard Taylor. 12mo., cloth, \$1.50. Pp. 164. New York: G. P. Putnam's Sons. [Claxton, Remsen & Haffelfinger.]

Essays in Literary Criticism. By Richard Holt Hutton. 12mo., cloth, \$1.50. Pp. 367. Philadelphia: J. H. Coates & Co.

The Ethics of Benedictus de Spinoza. From the Latin, with an introductory sketch of his life and writings, by D. D. S. Pp. 338. New York: Van Nostrand & Co.

JAMES RUSSELL LOWELL says: "I may presume to call myself intimate with the *Penn Monthly*, and value it highly as the only magazine known to me in the country wholly devoted to matters of serious concern, and solid in the treatment of them. That it should have maintained itself so long shows a higher average of popular intelligence than I should have expected, and is gratifying in proportion."

PARKE GODWIN says: "I have been a reader of the *Penn Monthly* almost from the beginning; and though I have frequent occasion to differ with it, on subjects of Political Economy, I am nevertheless always instructed by its discussions. The criticisms, the editorial notes and the general contributions, seem to me very carefully prepared, and above the usual level for thought and erudition."

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THE
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DECEMBER, 1876.

THE MONTH.

THE political status in Europe has only changed by the empty pretence of peace under form of a six weeks' armistice, with a view to a conference of the Powers. The prospect of any peaceful solution of the Eastern problem seems as far off as ever; indeed no solution seems at all possible that will suit more than one party, and if any basis of peace be reached it will be because more than one of the Great Powers has taken counsel with its fears rather than its wishes or its hopes.

Both seem to feel this and neither *seems* afraid. In Russia they are making all the preparations which portend a struggle; it is the moment with her which the old sailor pronounced the most terrible—the sanding of the decks before going into action. The one great difficulty in her way is the want of money, and as the Jews are unitedly favoring Turkey, and the English money market is of course not open, money is not easily borrowed.

In England the division between the mind of the nation and that of the government seems as great as ever. *The Times* speaking for the former bids Russia Godspeed in her new crusade. *The Pall Mall Gazette*, now a semi-official organ and the spokesman of the English “Mohammedans,” warns Russia not to trust to such utterance, and reminds her how the *Times* misled her at the opening of the Crimean war.

Other English newspapers foreshadow the policy which the Disraeli Government will follow in case of a Russian invasion of Turkey.

Instead of defending the assailed power, they will occupy its capital in the interest of the rest of Europe, as whose self-constituted representatives they now pose to an admiring world. Anything more stupid and insular never dubbed itself a policy. It would be a public confession of the essentially selfish motives which prompt the English patronage of Turkey, and nothing would be more in keeping with it than an announcement that the occupation was also to secure the English holders of Turkish bonds.

Just because we regard the English nation as at heart thoroughly right on this question, as really desirous of dissolving the league with hell and the bond with death in which Sir Stratford de Redclyffe entangled them, and the present ministry would keep them entangled, just for this reason we forecast their defeat in any *prolonged* encounter they may have with Russia. The bravest people have in the long run no chance when they are not sustained by any faith in the goodness of their own cause. It is for this reason that war is after all a just, as well as a stern, arbiter in distributing the destinies of nations. Victory runs in the great lines of justice and right, or else the history of the world, instead of exhibiting an orderly and steady progress to a higher and better order of the world, would present a mere weltering and disorderly chaos of events without meaning or purpose, as Schopenhauer and his school describe it.

Austria remains one of the uncertain elements of the European problem. The Magyar half of the empire desire either the accession of new Slavonic provinces nor the creation of new Slavonic States, nor the aggrandizement of the great Slavonic empire on the East. And the peculiar, double-yolked organization of the Empire, in which Hungary has in many respects a co-ordinate power of decision, renders it impossible to say on which side the armies and the diplomatists of Vienna will bring their power to bear. The most likely result will be the neutralization of the nation's influence as a European power in regard to all the questions in which Austria is most directly interested. Such a result was foretold by far-seeing critics at the time when the present duplex arrangement was adopted. Whatever be the advantages of federalism, it is manifestly unsuited to the union of two countries, where each retains its right of independent decision, but can go no further than to produce a dead-lock in case of disagreement.

Germany is not thinking of war; she is studying the economists to ascertain why it is that with all the conditions which should have produced national prosperity—plenty of hard money, low duties on imports and the like—she is poor and despondent. And she seems rapidly to be reaching the conclusion that the reductions of her Zollverein tariff, both contemplated and actual, are mistaken steps which must be retraced as speedily as may be. Herr Rouleaux tells her that that is the lesson of our Centennial exhibition, and that free trade is very rapidly ruining the quality of her goods by involving her in the great race of competition towards “the winning post of cheap and nasty,” as Carlyle calls it. Count Bismarck has given the Protectionist party to understand that he will offer no opposition to the repeal of recent legislation looking toward free trade, although for the sake of consistency his government will take no initiative in the matter.

This ministerial change of policy is chiefly due to the withdrawal of the influence formerly exercised by Delbruck, a skillful and plausible champion of the free trade policy; and as the junkers and landlords who control German legislation have not reaped the golden harvests they looked for, they will probably not resist a proposal to restore full protection to manufacturing industries.

THE silver distress seems likely to have the effect of producing a virtual breach of intercourse between England and her East Indian dependencies. In the latter, as throughout the greater part of the world, silver is the only circulating medium, and several attempts to introduce gold have utterly failed. During the last twenty years the Indian Government has followed the policy of erecting great public works—railroads, canals, irrigation schemes—which have been paid for by loans in the London money-market. This has absorbed a large part of that accumulation of capital which the English people seek every year to invest, but it has saddled the Indian Budget with a great outlay for the payment of interest. Formerly the balance of trade was very steadily in favor of China and India, so that both countries absorbed every year quantities of European and American silver in addition to the goods they purchased. Until the Indian Government's demand for gold in London and sale of bills on Calcutta began to exceed this amount, no inconvenience was felt, or rather the course of trade with the East was greatly

facilitated, since all debts with the East could be settled by bills of exchange instead of by the export of silver as formerly. But from the day that the Indian Government's offer of bills of exchange on Calcutta exceeded the mercantile demand for them, the price of such bills began to decline, and silver to rapidly depreciate. That depreciation however had been going on previously, for the policy of wholesale borrowing for Indian public works has been closing the chief avenue of outlet from the silver-producing to the silver-using populations of the world; with the effect, of course, of pulling down its market-price among the former, while its purchasing power among the latter, we are told, is not at all affected.

As regards trade with the East, the new state of things greatly favors those who import Indian or Chinese wares, but is a heavy tax upon merchants who export to those countries. It amounts to a high protection of the Bengalee manufacturer against his English competitor, and has therefore greatly stimulated the growth of Indian manufactures, especially cotton and jute, and more recently of iron. Hence the fierce outcry of Manchester and Dundee against the slight duties imposed by the Indian tariff upon their wares, which are all the more grievous because they raise twenty to twenty-five per cent. by imposing a bare five per cent. *ad valorem*.

To remedy this, some English financiers gravely propose that India establish a gold currency and get rid of her silver—a measure which would involve a wholesale confiscation of native property, without conferring any benefit upon them. The Council at Calcutta, however, have come to the conclusion that they have done mischief enough in burdening the peninsula with the cost of vast internal improvements, of which hardly one even approaches the payment of interest on its cost. They resolve very wisely to borrow hereafter in the Indian money market, if at all; to add nothing to their English debt and as far as possible to purchase in India itself all the supplies needed for the government. The wisdom of this last step will be seen when we state that the iron rails for the construction of the Indian railroads, were one and all conveyed from England, although India has millions of tons of iron lying on the very surface of her soil, and both she and China contain vast and valuable coal beds.

“Of all human weaknesses, prediction is surely the most gratuitous.” That the election of Mr. Tilden, even if he received the

vote of Indiana and New York, was not certain, because "the solid South" was not so solid as it seemed,—what seventh son of a seventh son could have foretold us this? Yet, as it now appears, the electoral votes of South Carolina—which elects a Democratic Governor—and probably of Florida and Louisiana will be cast for Mr. Hayes, giving him a majority of one in the whole electoral vote.

By the ordinary calculations of both parties, Mr. Tilden's election seemed certain on the night of the election, and it was not until twenty-four hours later that the news from the South turned the scale. During the suspense which ensued, and which lasted longer than on any similar occasion, the temper of the two parties was of course very different. The Republicans, passing from despair to hope, were in good humor with the turn of affairs, awaiting the result with the assurance that nothing worse could happen than what they already regarded as having happened. The Democrats, on the contrary, passing from sweet certainty to dubious expectation, were very naturally in an ill-humor, and used the language of denunciation and threatening much more freely than the circumstances called for. But hard words break no bones, and the conduct of all parties and of all sections of the country has been excellent. It has been evident from first to last that whoever receives the formal decision of the constituted authorities in his favor will be peaceably installed as President.

It may indeed seem unjust to cast the electoral vote of a State for one candidate, when the whole number of ballots deposited on election day showed a majority for the other. But where fraud and intimidation is proved in regard to any district, and the duty of rejecting its vote upon such proof is imposed by the law upon the supervisors, then its votes are as utterly null and void in law, as if those who cast them had remained at home. This seems likely to be the course adopted in Louisiana.

PERHAPS it would be a change for the better if the polls were kept open for a week, or on two days a week apart, instead of a single day. In that case it would be possible for the national government to receive an appeal from citizens who had been prevented by intimidation from voting, and to come to their assistance with military aid.

Throughout the present election the part played by the army and by its commander-in-chief, the President, has been most satisfactory

to all impartial observers. The outcry against the use of troops in several districts of the South has been seen to be altogether unfounded, besides being an insult to our officers and their men. There is not even a charge made that in any given case any citizen has been deterred from voting by the use of military force. And indeed the army is the one and only arm of the Government service which cannot be employed for partisan purposes, as it alone consists of men of both parties. For instance, at one time during the excitement growing out of the recent election, the troops in South Carolina were in command of an officer who served in the C. S. A. army, and whose political opinions have undergone about as little change as is consistent with his present loyalty to the United States.

Gen. Grant's order to despatch troops to Florida and Louisiana, on the news that the vote of those States was still in question, gave another occasion to alarmists, and was even described as unconstitutional. But the petty army of the United States is at the disposal of its Commander-in-chief at all times, and the Constitution imposes no restrictions upon his power to send it whithersoever he pleases inside the national territory. The restriction which the objectors had in mind was that which forbids him to increase its amount by calling out the militia, unless he is appealed to by the Governor of a State. And in Florida and Louisiana, as everywhere else, the army has simply been the best available substitute for what we shall have some day, a national police.

"Hoist with their own petard" would be the rightful verdict on the Republican party if Samuel J. Tilden were to occupy the Presidential chair. They carried Reconstruction of the Southern States on the basis of negro suffrage in the firm confidence that every Southern State in which the negro had the majority would become and remain the appanage of the party. And now they can count on the vote of just as many States in the South as the Democrats have in the North, and within ten years after Reconstruction a President is all but elected by Southern votes. They have failed in a selfish and unprincipled policy, because that, like all such policies, brought them into conflict with social laws which are as invariable in their operation as the law of gravitation. One such law is this, that the really strongest element in society does and always will govern it,

whether it be the minority or the majority. The Republican party itself is a living monument of the power of a superior minority to have its own way, by dint of grit and pluck. And the suicide of the Republican party was in giving up that faith, and substituting for it the practical atheism of a belief in mere numbers.

Another bad mistake in reconstruction was its lazy, sugar-and-water leniency. Either the Rebellion was a crime against the life of the nation, or it was a fearful crime to spend two hundred thousand lives in its suppression. Assuming the former alternative as true, the nation had no right to treat the crime of rebellion as a bagatelle, which called for no punishment. The party in power had no right to shirk the possible unpopularity consequent upon its punishment. Forgiveness and mercy do not find the proper objects of their exercise in those who profess no repentance for the past; the unrepentant sinner will receive no mercy at the bar of the All-loving and All-merciful Himself, simply because the remission of a penalty incurred is neither mercy nor love when the offender does not quit his transgression and abhor it. We do not plead for the execution of individuals, for the Rebellion was not the work of individuals. It was the instinctive and general uprising of communities against the righteousness of just law, because their life, as communities, had been poisoned and corrupted by slavery. And it was that worst of cruelty, a false mercy, to leave those communities still under the influence of that poison—full of contempt for labor and the laborer, full of the spirit which thrusts the weaker element down instead of lifting it up. The "slave-holding interest" always kept the South a unit, and that interest is as united and vigorous as ever. It has all but elected a President of the United States. We do not charge the white people of the South with any purpose or hope to set aside the letter of the laws of emancipation. But they do mean to keep the black man in a virtual slavery, and to use for that purpose all the means at their disposal. In some States, as in Virginia, the thing is to be done by cajolery and flattery; in others it is to be done by intimidation and brow-beating. They will not put forth a hand to give him the means of becoming independent of political tutelage, and to enable him to think and act or himself. And for us to expect him to resist and overcome this sort of influence, is to expect him to cast off all the bad habits of his slave life, and to learn in a day to love liberty and to suffer for it, as

the white race have learnt to love it in the course of millenniums of fighting, and suffering for it. There are individuals among the colored people who have shown the most exalted devotion to it, but it is too much to expect the race to come up to this.

THE astuteness and business capacity of our political people has had some wonderful illustrations in the recent election, as in several states, notably Rhode Island, Vermont and Oregon, persons have been chosen Presidential electors who are incapacitated from serving as such by their holding office under the United States Government. Fortunately most of the states have laws which enable their Electoral Colleges to fill up vacancies in their own number, and there is no reason to believe that in any case the purpose of the orderly and law-abiding citizens of those states will be defeated. According to precedent, the force of the law would not necessarily prevent a person who held a disqualifying office at the time of his election from removing his disqualification by resigning that office before acting as an elector. But at any rate there are enough persons in every state about whose capacity no doubt exists to fill up an electoral ticket without running any needless risks.

THE closing days of the Centennial Exhibition brought together vast assemblages of spectators, and even the *post mortem* weeks which followed counted their visitors by tens of thousands. The great assemblage of treasures, curiosities and wares is breaking up much faster than it was brought together, and before Christmas the most of the foreign, accompanied by many of the native exhibits, will be on their way to constitute part of the coming displays at Melbourne or Paris.

The severest critics of the Exhibition concede that it has been a success beyond reasonable expectation. The Centennial Board of Finance deserve the greatest share of the glory of the great work; to Messrs. Welsh, Morrill and their associates our city, our state, our country, owe a debt of gratitude which no thanks can repay, for their management of the greatest peaceful undertaking in our history.

The Exhibition was a complete success in its main object, in that it attracted so very large a proportion of the people of the country to a common centre of intellectual interest and educational influences. Very instructive was it that when an excursion of the school chil-

dren of Pittsburgh was proposed, it was found that the great part of them had been already here with their parents. The pastor of a country church in northern Illinois has stated that of the eighty families in his congregation forty had already come on, and nearly all the rest would do so. Or to take an instance in our own State, some people of a town and its adjacent district near Tyrone wrote to the railroad authorities to ask what would be the charge for transporting to Philadelphia an excursion of some two or three hundred persons, that being about the biggest number they thought likely to come. The train which brought that excursion was in ten sections. The people of another town, not in that direction from our city, felt a considerable amount of jealousy at the inception of the enterprise. They thought that the Exhibition should have been held on their soil for three reasons. *First*, that no memorable event of the era commemorated had taken place there, the town having been occupied by a corporal's guard of Hessians during nearly the whole of the Revolution. *Secondly*, because they had attempted a slightly similar Exhibition some years ago, of which an eminent and impartial authority says "its history may be briefly written as failure and its end fire." (British Catalogue, page 60.) And *Thirdly*, because there is no place within their limits or within reasonably easy reach of them where there is vacant space for anything larger than a good-sized circus. Yet those townspeople for the most part, or indeed with one consent, were won over by the bare merits of the Exhibition, and their newspapers—they have several—became its most zealous and effective promoters. Indeed, it is not too much to say that they could not have rendered better service if the Exhibition had been at home, and the good feeling between our people and theirs never was so cordial as at the present moment, when we are fighting with them for the grain trade of the Atlantic Coast.

It is to be regretted that the foreign Commissioners and exhibitors had so many unpleasant experiences of the quality of "the best Civil Service on this planet," in their dealings with the officers of our Custom-House department, especially during the last weeks of the Exhibition. The superabundance of red-tape—an article thought especially in vogue with the "effete" governments of Europe—was such as astonished these Europeans; but that is a question of expediency, and the simplest and most entangled methods of procedure

are equally good or equally bad in practice, according to the spirit which presides over their administration. Far worse, far less excusable, was the evident absence of any sort of controlling responsibility. The acts of official subordinates were disavowed, where it was not possible to charge that those subordinates had exceeded their powers. Rules and arrangements publicly promulgated were as publicly and quite unexpectedly rescinded. Decisions made were retracted by their very authors. To give a simple instance, the second invoice of the catalogue of the Netherlands Exhibit still lies *in perdu* at the New York Custom-House, simply because the Commissioners found by experience that the time required and the trouble involved in having it passed would be so great that it was not worth their while to attempt it. The first supply being completely exhausted, they were utterly unable to furnish great numbers of applicants, although the copies were actually on our soil and in charge of the officers of the Government on whose invitation that exhibit was sent. This very natural irritation was shared by the Commissioners of every nation of whose feeling on the subject anything is known. They especially complain that although the officers and representatives of foreign governments, they were on all occasions treated with a maximum of suspicion and distrust by these officers and representatives of our own. It would have been better if we had remitted the duties on every article exhibited, as *The Pittsburgh Manufacturer* proposed, than that our system of Tariff and Customs' Duties should have been thus held up to the scorn of the civilized world, on the very occasion on which all the world and his wife were our invited guests.

MUNICIPAL EXTRAVAGANCE.¹

SINCE our civil war, the growth of municipal expenditure in the United States has kept pace with individual extravagance, its progress being so rapid as justly to challenge the attention of all thoughtful men. For more than ten years the aldermen and other officials of almost every city in the land have been holding high carnival.

Great are the modern improvements in connection with the care of the poor, protection against fire, highways, public schools, and all the minor matters of municipal government. But great as they are their increased cost is so largely out of proportion to the benefits received that it is a grave question whether any city in the world can afford them.

The poor are no longer cared for, in an economical way, on city farms, where in former times the cost was so slight as to have been cheerfully borne by the industrious and thrifty classes. Now, at enormous expense, famous architects are employed to build great "institutions" equal in their first cost to a good farm for each inmate. No longer paupers, but "indigent persons," they are housed and fed in hotel style, and at the same time places are made for sleek office-holders, who, unless thus provided for, might sometimes be driven to apply for "inside" places.

The plain fire companies, that used to protect the property of our smaller cities, at the cost of a quarter of a dollar a year to each inhabitant, and did it so effectually that great conflagrations were of rare occurrence, are now superseded by grand and costly Fire Departments.

Their showy steamers, their ornamental hose-carts, their bouncing hook and ladder trucks, hung all over with every imaginable implement of convenience, are kept in readiness for instant service; manned by exclusively employed engineers, drivers and tiller men; and upon an electric alarm of fire, they are drawn through the streets at break-neck speed by well-fed horses, trained and kept for sudden dash. All these conveniences and all this perfection of outfit, how-

¹The substance of this article was read before the American Social Science Association at Saratoga, September, 1876, by Daniel L. Harris, of Springfield, Mass.

ever desirable, are the outgrowth of a management which make the cost of fire departments six times as great per capita as was paid for the corresponding service fifteen years ago.

Few city governments have been able to withstand the pressure brought to bear upon them by real estate speculators, and to refrain from locating costly and useless avenues in outlying districts of their territory. Instances are not uncommon where miles of completed streets with weeds and grass growing through their paving stones, are yet waiting the advent of pioneer builders. In the case of one prominent New England city, a sewer three miles in length has lately been completed by the city authorities along an avenue bounded on both sides by farming lands. And now, we read, that because the abutters cannot afford to pay that portion of the cost which is assessed upon them, their farms are to be turned over to the tax-gatherer.

Hitherto no one has ventured to lift up his voice against the folly of establishing, at the public expense, street lights along miles of sparsely settled roads; or against the practice of keeping them lighted, almost literally, from sun to sun; while the spirit of economy has so far forsaken men that it has become one of the most common sights to see a whole city lighted with gas in the presence of a brilliant full moon.²

The common schools no longer occupy the unpretending quarters in which the fathers and mothers of the present day received their early educational training. Now, in lieu of plain school houses, we have costly and inconvenient palaces, with their three and four stories, their lofty stairways, their spacious reception rooms, and their salaried janitors. Here, head masters receiving from \$3,000 to \$4,000 a year, preside over numerous assistants with correspondingly high salaries, at a cost of \$50 a year to each pupil for the teaching, and from one-half to three-quarters of a ton of coal each, for warming. The members of the school committee, acting through a School Superintendent, receiving a salary two or three times that of the mayor of the city, are selected in a large measure from the profes-

²In Philadelphia several years ago, the persons having charge of the street lamps were required, on bright moon-light nights to go their rounds and extinguish the gas-lights at the rise of the moon. This practice was made the subject of ridicule by both visitors and citizens; and for that reason, we suppose, was discontinued.—ED.

sional walks of life. Having but little acquaintance with practical affairs, and in some states actually exalted by their legislatures to the possession of a power which renders them independent of the local government, they are still continuing to pay to teachers, who, if employed in the material occupations of life, could not command the half of such compensation,—the high salaries of 1872.

In addition to all these modern extravagances which go to swell the tax levy, an enormous item to provide for interest upon funded debts incurred in building water-works, sewers, and railroads—an item of expense hardly dreamed of in 1861—has become the fashion.

In many cities the payment of this interest now actually requires a greater tax per capita than was the entire tax per capita to meet the expense of running the whole city government ten or fifteen years ago.

Before the war the local taxes of our large cities to meet their ordinary expenses, including county and State taxes, did not much exceed \$8.00 to each inhabitant. In Boston the taxes of 1861, including the amount necessarily raised for interest and sinking fund, was only about \$12.00 per capita. The tax of New York City at that period with all her incipient municipal extravagance, is said to have averaged only \$7.47 per head. When we come to compare these figures with the corresponding figures for 1875, as will be done further on, they will seem almost incredible. This recklessness in the management of public affairs has already brought some of our cities, prominent among which is a leading city of the West, almost to the verge of bankruptcy; and the time is fast approaching when the pecuniary obligations of many others are in danger of being dishonored, unless their present scale of expenditure be abandoned.

There is abroad in society a wide-spread, but as yet unpronounced feeling, that this extravagance of municipal expenditure has contributed in some way to the general exhaustion of its individual members. And yet, whenever this feeling chances to develop sufficiently to excite investigation, the inquirer is generally quieted with the suggestion that property has risen so much in value that the taxes are in reality but little more burdensome than they were in 1860. The rate of taxation per thousand on the official valuation is always quoted in support of this suggestion. The trouble is that the people in general have not paid sufficient attention to the mat-

ter to comprehend the mysterious relations between a growing valuation and the tax-rate, or the results of differing rules of valuation in different places, and so, for lack of knowledge, all investigation is postponed. Great irregularities always occur in the administration of local tax levies even under the same State government. The assessors of one city, with certain traditional theories in mind, will appraise all the property at one-half or two-thirds its just value. The assessors of another city may aim to arrive at the exact market value at the time. A third class of assessors, having in mind the professional truism that "the higher the valuation the lower the tax rate," thoughtlessly swell the assessor's list until it not unfrequently happens that similar property in neighboring places may exhibit differences of fifty per cent. in valuation. Very many cities have, through pride, and a desire on the part of managing men to conceal their spendthrift practices, been inveigled into the last named class, and it will not be surprising if within three or four years, when the official valuation shall have been readjusted it will be found that half their fancied wealth has vanished. Hence when we undertake to compare taxation at different periods in the same city, or the taxation in different places at the same period, and are told that in one city the rate is \$15.00 per thousand, and in another \$20.00 per thousand it by no means follows that the former city is more favored. A rate of \$20.00 per thousand applied to property at its just valuation is, of course, less burdensome by one third than a rate of \$15.00 upon property rated at double its normal value. The tax rate per thousand dollars by itself is no proper standard of comparison, but the division of the entire tax of a city by the number of its inhabitants gives us the average amount of the burden upon individuals, and there can be no simpler or more reliable standard of measurement than the amount of tax per capita.

To exhibit clearly the frightful extent to which the inflation of all taxable property has been carried and the sad results of extravagance, taxation and indebtedness which have followed such inflation, the accompanying table presents an exact statement for the years 1861, 1865 and 1875, of the population, valuation, amount of taxes and amount of funded debt, with additional columns showing the averages of valuation, taxation and debt per capita for each and all the cities of Massachusetts. The figures may excite surprise, but the hasty conclusion must be avoided that the affairs of these cities have

anything peculiar about them. Similar statistics from other groups of American cities would present corresponding results. Returns from the cities of Massachusetts could be obtained more conveniently than from any other equal number, and hence their selection for our present purpose. (See the table on the opposite page.)

The materials for this table were derived from official sources. It appears that Massachusetts now has nineteen cities, whose aggregate population was 570,348 in 1865, and had risen to 836,781 in 1875, an increase of 47 per cent. in the ten years. In the latter year, Boston, the capital city, possessed a population of 342,000. The population of nine others ranged from 50,000 to 25,000 each, and the nine smaller cities had an average of 17,000. More than one-half of the whole people of the state were then dwelling in the cities.

We can do no more than to indicate the great facts disclosed in this table and invite the reader to make them a subject for careful study. Using round numbers, we may say that the aggregate valuation of the cities of Massachusetts has advanced during the ten years, between 1865 and 1875, from \$631,000,000 to \$1,299,000,000, an increase of 104 per cent.; that the aggregate local taxes to meet the current expenses of these cities have, in the same period, risen from \$10,000,000 to \$19,500,000 annually, the increase being 95 per cent., while their aggregate funded debt has grown from \$18,000,000 to \$70,500,000, or an advance to almost four-fold.

If we leave Boston out of the account, the aggregate figures representing the rest of the cities are found to be still more startling. For while in the ten years the combined number of their inhabitants has risen from 312,500 to 495,000, an increase of 59 per cent., their valuation has advanced from \$205,000,000 to \$496,500,000 or 142 per cent.; their annual local taxes from \$3,500,000 to \$8,500,000 or 143 per cent.; and worst of all, their combined funded debt from \$4,500,000 to \$27,000,000, a six-fold increase in ten years. At the present time thirteen of these cities count their debts by the million.

It is difficult to state these propositions in such a way that the full truth can be apprehended. The mind soon wearies of listening to the recital of figures that treat of aggregated thousands of people and millions of dollars. For these reasons the per capita element has been introduced in working up the table, thereby enabling us to see upon the slightest inspection how extravagance in the management

TABLE, SHOWING THE AGGREGATE VALUATION, AMOUNT OF TAXES AND AMOUNT OF FUNDED DEBT, AND THE AMOUNT OF THE SAME PER CAPITA IN 1861, 1865 AND 1875, OF THE SEVERAL CITIES OF MASSACHUSETTS.

CITIES.	Year.	Population.	Valuation.	Taxes.	Taxes per Capita.	Funded Debt.	Funded Debt per Capita.	Per cent. of Debt to Valuation.
Salem	1861	22,041	\$14,267,650	\$120,962	\$5 50	\$126,645	\$5 74	
	1865	21,107	14,212,900	222,053	10 47	213,100	10 05	
	1875	25,955	26,312,272	433,206	16 69	1,415,000	54 52	5.4
Lowell.....	1861	35,663	21,444,722	106,601	5 51	170,000	4 76	
	1865	31,004	21,070,360	319,924	10 31	
	1875	49,677	38,694,495	649,286	13 07	1,750,000	35 23	4.5
Cambridge.....	1861	26,695	21,682,700	205,986	7 72	257,508	9 65	
	1865	29,114	26,085,900	404,476	13 90	833,092	28 61	
	1875	47,838	66,623,015	1,156,557	24 17	4,617,500	96 52	6.9
New Bedford....	1861	22,012	23,191,900	216,581	9 13	297,300	13 50	
	1865	20,863	20,333,600	334,487	16 03	498,000	23 87	
	1875	25,876	26,375,274	466,832	17 80	1,198,000	46 30	4.5
Worcester.....	1861	25,979	16,230,600	139,212	5 36	102,324	3 94	
	1865	30,058	18,937,900	321,598	10 70	424,418	14 12	
	1875	49,265	49,267,081	825,440	16 75	2,479,700	50 33	5.0
Lynn.....	1861	19,228	9,232,708	108,829	5 66	123,000	6 38	
	1865	20,800	10,619,006	220,346	10 59	378,500	18 20	
	1875	32,600	28,077,793	504,474	15 47	2,006,000	63 93	7.1

<i>Newburyport</i>	1865	13,320	6,598,100	495	72,237	5 42	100,300	7 53
	1875	12,980	7,382,000	568	135,185	10 41	210,415	16 21
		33,323	8,044,913	603	159,619	11 98	418,972	31 45
<i>Springfield</i>	1861	16,567	9,485,580	573	83,793	5 06	100,000	6 06
	1865	22,038	12,792,760	580	222,032	10 07	244,850	11 11
	1875	31,053	39,524,572	1,272	696,089	22 41	2,120,819	68 30
<i>Lawrence</i>	1861	18,458	10,769,615	584	100,733	5 46	222,700	12 07
	1865	21,733	12,779,065	588	180,459	8 30	360,300	16 58
	1875	34,997	24,117,373	690	440,706	12 62	1,726,700	49 95
<i>Fall River</i>	1861	14,726	11,261,065	765	102,162	6 64	171,437	11 64
	1865	17,525	12,136,990	692	209,184	11 94	369,455	21 09
	1875	45,340	51,401,467	1,133	768,464	16 93	2,744,532	59 87
<i>Chester</i>	1861	13,596	7,229,094	532	76,046	5 59	247,300	18 18
	1865	14,403	8,276,050	574	172,720	11 99	372,300	25 85
	1875	20,695	18,543,116	896	381,438	18 43	1,661,800	80 30
<i>Taunton</i>	1861	15,502	7,937,007	512	69,287	4 47
	1865	16,005	7,912,682	494	147,828	9 23	100,000	6 25
	1875	20,429	17,326,666	848	270,352	13 23	273,250	13 39
<i>Haverhill</i>	1861	10,128	5,451,600	538	52,503	5 18	59,501	5 87
	1865	10,660	4,663,449	437	96,115	9 01	231,000	21 67
	1875	14,628	10,497,132	717	192,076	13 14	447,000	30 56
<i>Somerville</i>	1861	8,293	5,777,600	697	48,677	5 87	53,049	6 39
	1865	9,366	6,590,807	703	103,398	11 04	142,724	15 08
	1875	21,868	31,317,000	1,432	518,157	23 69	1,571,854	72 01
<i>Fitchburg</i>	1861	7,868	3,714,437	472	42,451	5 39	46,302	5 88
	1865	8,119	4,081,885	502	98,986	12 19
	1875	12,289	12,518,742	1,018	228,179	18 57	786,000	63 47

5.2

5.4

7.2

5.3

9.0

1.6

4.3

5.0

2.6

CITIES.	Year.	Population.	Valuation.	Valuation per Capita.	Taxes.	Taxes per Capita.	Funded Debt.	Funded Debt per Capita.	Per cent. of Debt to Valuation.
<i>Holyoke</i>	1861	5,127	\$2,270,439	\$443	\$16,179	\$3 15	\$8,200	1 59	
	1865	5,648	3,130,343	554	49,131	8 70	8,730	10 40	
	1875	16,200	9,681,127	595	268,535	12 82	667,500	41 05	6 9
<i>Gloucester</i>	1861	11,111	4,111,364	370	43,011	3 87	28,081	
	1865	11,938	4,859,348	407	111,833	9 37	85,056	7 12	
	1875	16,754	9,238,265	551	183,341	10 94	189,546	11 31	2 1
<i>Newton</i>	1861	8,500	7,600,120	894	57,805	6 80	41,151	4 84	
	1865	8,978	9,140,260	1,018	113,991	12 70	
	1875	16,105	28,955,869	1,797	389,642	24 19	1,001,973	62 21	3 5
SUMMARY:									
<i>Aggregate of the Cities, excepting Boston</i>	1861	294,814	\$188,256,301	\$638	\$1,753,055	\$5 94	\$2,254,798	\$7 63	
	1865	312,429	205,017,305	656	3,463,746	11 08	4,521,940	14 47	
	1875	494,862	496,516,172	1,003	8,466,393	17 11	27,040,146	54 64	5 4
<i>Boston, including its annexed Territory</i>	1861	241,756	377,453,511	1,561	2,064,973	12 26	9,389,638	38 87	
	1865	257,919	426,176,107	1,653	6,880,609	26 68	13,694,360	53 95	
	1875	344,919	793,961,895	2,322	11,047,794	32 31	43,414,829	126 68	5 4
<i>Aggregate of all the Cities</i>	1861	536,570	565,709,812	1,054	4,718,028	8 79	11,603,033	21 62	
	1865	570,348	631,193,497	1,107	10,344,445	18 14	18,220,300	35 95	
	1875	836,781	1,290,478,067	1,542	19,514,157	23 32	70,454,975	84 19	5 4

Total of Debts in 1861..... \$11,603,033.
 Total of Debts in 1875..... 70,454,975.
 Increase in Fourteen Years..... \$58,851,942.

Boston reported a Sinking Fund of \$15,038,900. Some of the others had small amounts, but most of them had none.

of municipal affairs affects the average citizen when all the property and all the burdens of society are assumed to be equally distributed. In using this form of statement it is necessarily assumed that where, in any given period, the population increases by immigration, the added numbers bring with them the average amount of wealth. This may or may not be the fact. In the present case we know it is not; for the floating classes, which have so greatly swelled the population of our cities, seldom carry much wealth anywhere. But as the error, if corrected, would but strengthen our position, it will not be further noticed.

With the per capita element introduced into the table it is easy to see, for example, that while the official valuation increased the property of Lowell and of Lawrence at the rate of only about ten dollars per capita per annum from 1865 to 1875, the assessors of Fall River advanced the valuation an average of \$44.00 per annum upon a population which had grown in the same time from 17,525 to 45,340 being more than two and a half fold. It may also be seen that the tax of one of the cities averaged \$5.06 per capita in 1861, that four years later this tax had grown to \$10.07 per capita, and in 1875, was no less than \$22.41. Another glance at the table shows us that while the debts resting upon the cities outside of Boston in 1861, averaged only \$7.63 per capita, in 1875 this average had risen to \$54.64.

Perhaps the most striking facts disclosed in the table are first, that at the outbreak of the war in 1861, the actual cost of managing the municipal concerns of the cities of Massachusetts, except Boston, and including the payment of county and State taxes averaged only \$5.94 per capita; second, that in 1865 their expenses had risen to \$11.08 and that in 1875 they had become no less than \$17.11 per capita.

In 1861, the average valuation for all the inhabitants of the cities was \$1,054, and in 1875, when the population was double and yet possessed only the same number of acres of city lots with a little more brick and mortar piled upon them, the valuation for each inhabitant was \$1,542. Can any one fail to see that this large increase in the valuation represents simply imaginary wealth—that it is fiction rather than fact?

One more impressive lesson remains to be noted. In 1861, the combined funded debt for all the cities was an average burden of \$21.62 upon each inhabitant. In 1875, the same debt had risen to

\$84.19 apiece upon the the duplicated members. It may be well to contemplate these frightful obligations in the aggregate, and attempt to realize that in 1861 they amounted to \$11,000,000, and in 1875 to \$70,500,000, the increase being \$59,500,000 in fourteen years. The enormity of these figures will be better appreciated if we note, in immediate connection with them, that the annual interest to be paid upon the \$70,500,000 amounts to at least \$4,500,000, while the total aggregate expenses of all the city governments of the State in 1861 was but \$4,700,000. It will be noticed that the present indebtedness of the cities is equal to 5.4 per cent of the enormously inflated valuation of 1875. This per centage would reach to nearly double what it now appears if the valuation were to be properly reduced.

We have seen that the average cost in 1861, of all the city governments of Massachusetts, excepting Boston, was \$5.94 per capita. Boston appears to have managed her municipal affairs in the same year for a per capita expense of \$12.26. In 1861, Boston was already in debt to the extent of \$9,000,000, and, therefore, it may be assumed that about \$3.00 per capita of her tax that year was to provide for interest and sinking funds, leaving \$9.26 as the probable expense of managing her municipal affairs if there had been no debt. But when Boston is reckoned in with the other Massachusetts cities at her full municipal expenditure, including interest, the average tax for all the cities, as appears by the table, was only \$8.79, or say \$9.00 per capita. This hard fact should never be lost sight of by those who have charge of municipal affairs in these latter days.

A recent number of the New York *Financial Chronicle* contains the statistics of valuation, amount of debt less sinking funds, the debt per capita, the tax-rate per thousand dollars and the percentage of debt to valuation for fifteen of the prominent cities of the country. Assuming the correctness of these statistics and deducing the population from the per capita column, and the total amount of taxes from the tax-rate, the accompanying table is constructed on the same general plan as the one we have been contemplating.

It will be seen from this table that wide differences obtain in the valuation of property for tax purposes, and how little reliance can be placed upon any simple statement of "the tax rate per thousand dollars" for measuring the desirability of any city as an economical place of residence. Thus St. Louis and New York City each appear

TABLE SHOWING THE AGGREGATE VALUATION, AMOUNT OF TAXES AND AMOUNT OF FUNDED DEBT,
AND THE AMOUNT OF THE SAME PER CAPITA OF FIFTEEN PROMINENT CITIES,
FOR THE YEAR 1875.

CITIES.	Population.	Valuation.	Valuation per Capita.	Taxes.	Taxes per Capita.	Funded Debt.	Funded Debt per Capita.	Per- centage of Debt to Valua-
Buffalo	120,070	\$39,668,105	\$332	\$1,420,866	\$11 83	\$7,264,291	\$60 50	18.
Tokdo.....	32,140	19,798,580	616	879,056	27 35	3,556,754	111 10	17.9
Brooklyn.....	398,882	225,176,755	565	7,678,527	19 28	35,031,263	88 00	15.5
St. Louis.....	312,522	160,125,700	320	3,202,514	10 24	17,345,000	55 50	10.7
New York.....	926,775	1,100,943,700	1,187	32,202,603	34 74	116,773,724	126 00	10.6
Baltimore	270,282	231,503,129	856	4,167,056	15 41	24,325,417	90 00	10.5
Cincinnati	209,065	184,498,565	882	5,317,248	25 43	19,234,000	92 00	10.4
Philadelphia.....	678,522	595,413,478	877	12,801,389	18 87	59,686,223	88 00	10.
Cleveland.....	95,043	73,205,377	770	1,328,677	13 97	6,386,900	67 20	8.7
Newark.....	106,073	104,419,098	984	2,067,498	19 49	8,608,000	82 00	8.2
Detroit.....	101,461	27,774,630	273	1,088,765	10 73	2,282,900	22 50	8.2
Chicago	398,688	303,705,140	762	5,466,692	13 73	18,530,934	46 55	8.
Providence.....	100,095	122,024,100	1,219	1,769,349	17 67	7,157,400	77 50	6.3
San Francisco.....	150,262	264,229,444	1,692	5,548,818	36 26	3,441,000	22 90	1.3
Boston.....	307,158	793,767,900	2,579	10,049,101	32 65	27,082,778	88 00	3.5
Aggregate of all Massa- chusetts Cities except Boston.....	494,862	496,516,172	1,003	8,466,393	17 11	27,040,146	54 64	5.4

from the last column to have a funded debt equal to 10.5 per cent. of their respective valuations. But in view of the fact that the debt of St. Louis is only \$17,000,000, while that of New York is \$117,000,000, these percentage statements seem inconsistent, until we find, by further inspection, that the valuation per capita of St. Louis is \$320, while that of New York reaches nearly four times that amount, being no less than \$1,187 per capita. No one will be likely to suggest the possibility that any such difference in the per capita wealth of these or any other two cities really exists.

The disclosures made by this table are simply astounding. Language can add very little if anything to the impressiveness of these ominous figures. Behold, New York City submitting to an annual tax of more than \$34 per capita, and at the same time struggling to carry an amount of debt averaging \$126 for every man, woman and child of the population. Contemplate the probability of the city government of New York reducing its annual expenses to \$8.00 or \$10.00 per capita, and then imagine the people of the city coming to a realizing sense that the payment of the debt alone involves a contribution equal to every dollar of their net earnings for twelve years to come!

We pass on with the brief notice that most of these cities are taxed for current annual expenses far beyond the entire net earnings of their respective populations.

In the contemplation of these figures some persons will doubtless find a grim satisfaction in the thought that their respective cities are not singular in being thus loaded with taxes and debt. People in difficulty are quite prone to seek consolation in the fact that others are worse off than themselves. But the situation is really too grave to justify or even excuse any such feeling. These tabular statements have not been prepared to show that one city is worse off than another. All of them are in a condition to excite apprehension on the part of their citizens. The situation in any one of them would be no less serious than it is if all the others were free from debt and their affairs were managed on a scale which would enable them to meet all their obligations.

In order to render this table as useful as possible there is added to it a line embracing the combined corresponding exhibits of all the cities of Massachusetts, excepting Boston, as shown in the first table, the sinking funds being deducted before stating the indebtedness.

It may be asked whether the same delirious extravagance has obtained in the management of townships as in the affairs of the cities, and whether the normal cost of city government is necessarily higher than that of town government.

In pursuing these inquiries we have collected and arranged upon the per capita basis the statistics covering, first, the population, valuation and tax of all the townships of Essex county, in Eastern Massachusetts, and secondly, the same data for all the towns of Hampden county in the western part of the State. These have their value in connection with the tables given for the purpose of determining the normal cost of town and city governments and the relative extravagance of the two at the present time.

From them we gather that the inhabitants of towns have indulged little less than those of the cities in the pleasing illusion of growing rich by the official inflation of their property. There are nineteen township governments in Hampden County. In 1861 the assessors' valuation of property was \$3.99 per capita tax, and in 1875 it had advanced to \$5.71, an increase of 43 per cent., while the corresponding figures for all the cities in the state show an average gain of 46 per cent. The population of the towns increased during the fourteen years from 44,215 to 63,237 or 43 per cent., while that of all the cities in the State averaged 55 per cent. The entire tax of the towns in 1861 was \$3.24 per capita, and the tax of Springfield, the only city in the county, was \$3.98, while the average tax of all the State, except Boston, was \$5.94 per capita. It is not pleasant in itself to read that these towns of Hampden County increased their tax per capita from \$3.24 in 1861 to \$10.86 in 1875; but this increase compares favorably with the corresponding average increase of taxes for all the cities in the State,—the latter having advanced from \$8.79 in 1861 to \$23.32 per capita in 1875. The twenty-six township governments in Essex County appear to have pursued a policy more conservative than that of the towns of Hampden County. The valuation in 1861, in the Essex towns, was \$660.00 per head, and in 1875 it had risen to \$703.00, the taxes averaging \$4.62 per capita in 1861, and \$9.99 in 1875. Reasoning from all the foregoing exhibits, it is found to be substantially accurate to say that in 1861 the expense of maintaining town governments in Massachusetts was \$4.00 per capita, and the expense of government in the cities, outside of Boston, was \$6.00.

A few months since the writer prepared for the benefit of the citizens of Springfield, Massachusetts, a tabulated exhibit of the municipal expenses from year to year since 1860, showing in detail the rapid increase of expense in all the departments, the resulting taxation, and the simultaneous increase of funded debt. This work was done in the hope of arousing the taxpayers to a sense of the situation and of securing economic reforms in season to avert the danger which seems to threaten us. The success of the effort is yet problematical.

These statistics go back to the year 1845, but are chiefly valuable as showing the changes which took place between 1861 and 1875. In that time the population increased from sixteen thousand to thirty-one thousand, while the official valuation rose from \$572 per capita of the first number to \$1,273 per capita of the doubled population. It is worth while to note that in this period of fourteen years the annual expense for schools increased from \$1.27 to \$3.95 per capita; for Police from \$0.08 to \$0.95 per capita; for the Fire Department from \$0.32 to \$1.52 per capita; for the Pauper Department from \$0.17 to \$1.22 per capita; for the streets from \$0.41 to \$4.07 per capita; for sewers from \$0.05 to \$1.50 per capita; for lighting streets from \$0.11 to \$0.83 per capita; for interest upon funded debt from \$0.48 to \$4.39 per capita, and for miscellaneous expenses from \$0.81 to \$2.89 per capita, the sum total of increase in the annual expenses being from \$3.98 in 1861 to \$22.76 in 1875, or nearly six-fold per capita. In the mean time the annual tax upon the property holders has risen from \$29.08 to \$153.43. It may help to fasten some of these startling facts in our minds if we associate them as follows: In 1875 the schools cost us \$3.95 per capita, the streets \$4.07, and the tax for interest alone \$4.39, *the latter sum being 41 cents per capita in excess of the expenses of every kind* for managing the local affairs of the city in the year 1861.

The capacity of the people to bear taxation is a question which hitherto it has been our good fortune to have had little occasion to discuss. But the time is at hand when it must be a practical inquiry as to what is the average accumulation or net earnings per annum of the entire population?

Mr. David A. Wells has shown from government statistics that the gross income of each individual would be \$175 per annum, supposing the value of our annual product to be equally divided

among the present population of forty millions. Reasoning from the same data, Mr. Wells has also stated his conviction that the average net earnings over expenses, or the accumulation of each individual *does not exceed* \$12.50 per annum and is probably much less. Small as this sum seems at first thought, we are satisfied that it is a large over-estimate. A division of the aggregate wealth of the country among all the people would give only about \$600 to each person. If we assume that this wealth has been accumulated in the last hundred years, the average annual accumulation would appear to be only six dollars per capita.

Other statistics, which we have consulted, make this probable saving less than \$8.00. Doubtless there are some communities enjoying the monopoly of special industrial pursuits, where the average net earnings per capita may be temporarily larger than this, but with all the information attainable on the subject, we are inclined to place the general average at less than \$8.00, and there can be no doubt that \$10.00 per capita is an outside estimate. Whatever this average annual accumulation may be, it is safe to assume that although the wealthiest people usually live in the cities, yet the residents of the cities do not, as a whole, accumulate property any more rapidly per capita than do the people outside. At all events the variation either way is slight, and we will assume ten dollars to be the average net earnings of the city population, the normal and necessary cost of their municipal affairs being reckoned as a proper item of expense in arriving at this conclusion.

It will be remembered that according to our first table \$9.00 per capita was the average expense attending the administration of municipal affairs for all the cities of Massachusetts in the year 1861. Of this expense at least \$2.00 was made necessary by the fact that the cities had already incurred an aggregate indebtedness of \$12,000,000. Now the payment of interest upon a debt contracted to meet the extravagance of former years, although such payment has become obligatory by the action of the community, is in no sense a legitimate item in the current expense of municipal government. If we deduct \$2.00 as the expense of this debt for interest and sinking funds, from the total expense of \$9.00 it leaves \$7.00 as the normal and proper cost of city government in 1861. Except in the depreciation of our currency there seems to be no reason why the legitimate expenses of any city should be greater per capita to-day

than in 1861; and making the large allowance of one dollar for this depreciation of currency, the *normal* per capita current expense of managing municipal affairs at the present time is found to be \$8.00.

I am not unmindful of the probability that many persons whose acquaintance with municipal matters is limited to the last ten years, and whose attention is now for the first time drawn to the subject, will demur to the suggestion that the governmental affairs of our cities have been and can again be administered at an average cost of \$8.00 per capita, exclusive of debt charges. But in the great city of London in 1875, with all the administrative extravagance connected with its public affairs, the sum of \$11.00 per capita covered the total cost of those items which in our cities are reckoned as the expenses of local government, and are included in making the municipal tax.

The conclusions, to which all these figures point, are:

1st. The average net earnings or accumulations of all the individuals of a city do not exceed \$10.00 per capita, annually.

2d. The proper annual tax for defraying the cost of managing all the affairs of a city is \$8.00 per capita, and a payment of that amount is assumed as legitimate personal expenses, to be deducted from gross earnings in all computations to determine the average accumulation of the whole community.

If these propositions are established the conclusion is inevitable that the largest practicable expenditure above \$8.00 which any city can make without incurring positive debt is a sum expressed in dollars equal to the number of its people multiplied by ten. Whenever from any cause current municipal expenses are allowed to reach \$18.00 per capita, is it not perfectly evident that the entire resources of the whole population from their annual accumulation will be exhausted in paying the taxes? And in any city where the annual charges for local government should reach \$28.00 per capita, can any rational man doubt that after liquidating these charges the average wealth of the citizens will be reduced by \$10.00? Is there any legerdemain whereby 50,000 people associated in a municipality can for any length of time expend annually upon their joint affairs more money than the entire population is able to save out of its gross earnings?

How then, it may be asked, have our cities been able to go on for the last decade and a half, many of them making annual expenditures so large as to require taxes ranging from \$20.00 to \$35.00 per capita and, in addition to these taxes, the raising of other large sums by the issue of municipal bonds? The problem is of easy solution.

From 1862 down to a very recent period there was a steady inflation in the market value of all property, and especially of real estate in the cities. This inflation was due to derangement of the currency and the false theories of finance upon which the country has been acting, rather than to any legitimate and healthy increase of business. So long as the steady advance in the valuation of their property was maintained, the people took little note of the amount of taxes, for the almost universal test which they applied was the "rate per thousand dollars," and this did not materially change. The official valuation of property usually kept pace with the growth of municipal expenditure, and so the tax rate per thousand was kept down nearly to the original standard. While capitalists and savings institutions were only too glad to furnish the needed funds in exchange for additional mortgages, the payment of these increased taxes was easy. All this is changing now. Inflation ceased with the commercial panic of September, 1873. Three years of heroic but vain struggle to hold to high prices then followed. Contraction is now fairly under way. Henceforth the local taxes, when paid, must be paid out of the current net earnings or the accumulation of the people, and it will be found that the same legitimate tax per capita, which obtained before the war, is quite as heavy a burden as the people are able to bear. In reasoning upon this disagreeable subject of high taxes and the possibility of continuing to meet them, some people find great satisfaction in the fact that these large tax bills have been actually levied and generally collected during the past ten years. They argue that the same thing may be done in the future. But the payment of these very taxes, which seemed so easy while it was being done, is obviously one of the chief sources of present individual embarrassment. For if it be true that the accumulated savings of the average citizen do not render practicable the liquidation of a tax greater than \$18.00 per capita—that is \$8.00 for the legitimate tax and an excess of \$10.00 as the average net earnings of the individual—then it must be perfectly evident

that payment of any larger sum per annum, for the last few years, has had the effect to impoverish the average citizen by the full amount of such excess. In this connection the remark is ventured that, whenever a municipal corporation expends annually more than \$18.00 per capita in its domestic affairs, it will matter little so far as the real result is concerned whether the full expense be met by a direct tax, or a tax of \$18.00 per capita be levied for a part and the balance be settled by borrowing upon city bonds. The first process brings the necessary debt squarely upon the shoulders of individuals and rapidly exhausts their surplus, while the other process has only the questionable advantage of postponing the day when it must become apparent to all how impossible it is for the municipality to expend, for any considerable time, a greater sum than the current net earnings of all its members.

Are any practical benefits likely to result from the exposure of municipal extravagance? In other words, is it possible to arouse the attention of the people and by introducing real economy in current expenses to save some of the cities from the impending financial dishonor of their obligations? On this point we should hope for the best, but have reason to fear the worst. The difficulty is to make the people realize how unjustifiable is the present scale of expense, and how certainly it tends to financial disaster. The best men in every community are giving too little thought to this great subject. It may be too late to save the financial honor of some of the larger cities of the country, but in many of the smaller cities, where the situation already seems desperate, it would yet be possible for three or four earnest and fearless men, acting in concert, to bring about the needed reforms in season to avert the danger. Will they do it? The task is an ungracious one and the chances are against its being undertaken.

In closing this paper we may be permitted to express the hope that its subject matter will in the early future have earnest attention, for there can be no question as to its overshadowing importance. In its treatment we have aimed to present reliable data from which to form conclusions, rather than to surprise by any seemingly rash predictions of our own. The tables of statistics have been prepared with much labor and with every precaution to secure accuracy. Those who are accustomed to read figures will find them replete with valuable information; to those who are given to prophesying

they are pregnant with suggestion ; and the political economist will be mortified to see how completely the fundamental principles of his science have been disregarded.

ON THE DECREASE OF BIRDS IN THE UNITED STATES.

IN the accounts the early settlers of the United States have left us of their experiences, they often refer to the scarcity of the smaller birds in the undisturbed forests, and note the fact that no sooner is a clearing made, a house erected, and the ground broken for agriculture, than many kinds of the smaller birds, before scarcely observed, gather about and take up their residences in the immediate vicinity of the new settlement. A few species that are rarely seen so long as the country remains in its primitive condition, forsake their wilder haunts with man's appearance on the scene, and become his associates. Notably is this the case with the robin, the blue-bird, the house-wren, and several kinds of sparrows and swallows, while others resort to the fields in large numbers with the first attempts at their cultivation. Doubtless the species in question do not thus actually increase suddenly in abundance, but simply leave their former resorts for surroundings they at once recognize as more congenial to them. Many species, however, possessing in other respects quite similar habits, seem to ever look upon man with distrust, and immediately retire from his presence. Hence the settlement of a region previously unoccupied by civilized man, rapidly entails a general revolution in the haunts of many of the species as well as in their relative abundance. While many of the smaller birds take up their abode within the precincts of civilization, the larger soon find in man an enemy whose presence they quickly learn to shun. Many of the larger species are eagerly pursued by him for food, often to such an extent as to materially reduce their number. At first easily approached, they soon lose their confidence in him as a harmless invader of their haunts, and through bitter experience learn his true character. Other species whose natural resorts are the deep forests, are soon forced to seek new homes,

through the necessary removal of the forests to make way for agriculture. Other species prove obnoxious from their frequent inroads upon the fruits of the husbandman's industry, and hence become forever proscribed races. Through these and other very natural causes, great changes have resulted in the relative abundance of the different species of birds within the settled portions of the United States since these areas came under the dominion of the white race of man. So scarce indeed have many species become, and so differently limited in their ranges, that their former abundance over districts from which some have become wholly extirpated, and over which many others have become a thousand-fold reduced in numbers, would seem hardly creditable were it not a matter of historic record.

When Europeans first visited what is now the United States, they found all the bays and inlets of the Atlantic Coast, and all the rivers and lakes of the interior, literally swarming with water-fowl, their countless numbers at times "darkening the air," while the noise of their wings resounded like the "rumbling of distant thunder." While few of the species have become totally extinct, none are nearly so numerous as formerly. From Florida to Maine, the early settlers had no trouble in shooting as many of these birds as they wished, almost from their very doors, where now the sportsman may range the country for many a weary mile without even a view of the coveted game. The representatives of this large class of game-birds occur in any tolerable degree of abundance at only a few distant points, and when found they are obtainable by only the utmost vigilance and caution. The terrestrial game-birds have also similarly decreased, some of the more important species having become wholly exterminated throughout vast areas. The rapacious species, so numerous once as to be an absolute annoyance, are now so scarce as to be looked upon as trophies when captured by the youthful sportsman, and as rare acquisitions when obtained by the ornithological collector. This has resulted in part through the persecution to which they have been so long subjected, a premium having been at times set by law upon their heads; and in part from the deforestation of so large a portion of the older States. The removal of the forests has also doubtless greatly diminished the numbers of all of the strictly forest species, but in none is it more noteworthy than among the different species of woodpeckers, amounting in a few instances to partial ex-

tirpation. A few of the smaller occupants of the more open country have also suffered a notable diminution in numbers, particularly observable among the black-birds and the crows, their extirpation having been fostered by the payment of premiums by the local governments for their destruction. Many other species, wholly unobnoxious, have been greatly affected by the settlement of the country and its subjugation to agriculture, while some have simply fallen a prey to the ruthless spirit of destruction that kills simply for the pleasure of taking life. To refer to the destruction of our birds more in detail is to expose, in many cases, reprehensible acts of cruelty which offer often few or no ameliorating features.

When Massachusetts was first settled, Cape Cod was still, in all probability, the abode of the great flightless auk (*Alca impennis*), as was the more northerly coast for many years after. There are, at least, references to the existence of birds called "pengwins," by the early writers, as far south as the coast of Massachusetts. What these so-called "pengwins" were, we distinctly learn from Richard Whitbourn's account of his voyage to Newfoundland in 1618. He says: "These Penguins are as bigge as Geese, and flie not, for they have but little short wings, and they multiply so infinitely upon a certaine flat lland, that men drive them from thence upon a boord into their Boates by hundreds at a time; as if God had made the innocencie of so poore a creature to become an admirable instrument for the sustentation of man."¹ Their "innocencie" and man's cupidity very soon, however, effected their total extirpation south of Nova Scotia.

The turkey formerly existed throughout all of the region south of the latitude of the Great Lakes, from central New England to Florida and the Gulf of Mexico, but in the wild state it now exists in numbers only in the least inhabited portions of the Alleghanies and the South Atlantic and Gulf States. The pinnated grouse, or prairie hen (*Cupidonia cupido*), likewise inhabited portions of New England, New York, New Jersey, and Pennsylvania as well as the western prairies; but it has not only disappeared from all of the more easterly States, but has also become considerably restricted in its range, even in the prairie States, where its extirpation, unless prevented by timely legislation, will be one of the near events of the future.

¹ Purchas, Vol. IV., p. 1886.

The noisy, chattering Carolina parrotquet—the sole representative in the United States of the large and interesting order to which it belongs—which in early times ranged over most of the eastern half of the United States, from the Lake States southward, and was abundant from the Ohio Valley and Maryland southward to the Gulf, will soon doubtless be numbered among the totally extinct birds of the United States. Its destructive proclivities certainly rendered it somewhat obnoxious wherever it was abundant, and formed one of the chief causes that led to its rapid restriction. From the novelty of its form, plumage and habits, it has ever had to run the gauntlet of numberless shot-guns wherever it has been a casual visitor. At present it is hardly anywhere abundant, and is frequent only over portions of the South Atlantic and Gulf States.

The pileated woodpecker (*Hylotomus pileatus*), or log-cock of the woodsman, was formerly a numerous inhabitant of the forests of the United States, from Maine to Florida and Texas. The destruction of the forests began quite early to affect its range, and for many years its harsh notes and loud tapping have been heard only in the most unsettled parts of the States east of the Mississippi, it being already nearly or quite extinct over two-thirds of the area it formerly inhabited east of the Mississippi River. Most other species of the woodpecker family are doubtless far less numerous than formerly, owing mainly to the deforestation of the country. One species, however, the well-known red-headed woodpecker (*Melanerpes erythrocephalus*) has almost entirely disappeared from portions of its former habitat. Formerly as abundant in New England as it now is in the Middle and Western States, it has, in comparatively recent times, nearly abandoned all of the country east of the Hudson River.

None of the swimming and wading birds, except the great auk, have as yet become wholly extinct, but all have become greatly reduced in numbers, the greater part probably being not a hundredth part as numerous now as when the country was first visited by Europeans. During the seventeenth century, the sand-hill crane, and probably also the whooping crane, were common species all along the Atlantic coast eastward to Maine, though for the last hundred years they have been rarely met with on the Atlantic slope north of North Carolina, and are of rather rare occurrence now between the Ohio river and the Great Lakes. They have, in fact, never been recognized as birds of the New England fauna, and appear in the

local lists of the birds of the Atlantic States, north of Georgia, only as occasional or accidental visitors. Captain Philip Amadas, however, speaks of meeting, in 1584, with immense flocks of these birds on "Wokokon" Island, on the coast of "Virginia." He says that his party having discharged their "harquebuz-shot, such a flocke of Cranes (the most part white) arose under us, with such a cry, redoubled by many echoes, as if an armie of men had showted all together."² The crane also figures in most of the early accounts of the natural productions of the Atlantic coast region from Virginia northward. Thomas Morton speaks of their abundance in Massachusetts as late as 1630. Of "Cranes," he says, "there are greate store, that ever more came at S. David's day, and not before: that day they never misse. These sometimes eate our corne, and doe pay for their presumption well enough; and serveth there in powther, with turnips to supply the place of powthered beefe, and is a goodly bird in a dishe, and no discommodity."³

The swan is also mentioned by the same writer as a bird of New England, although its occurrence there is almost unrecognized in the annals of ornithology. He says, in his enumeration of the birds: "And first of the Swanne, because shee is the biggest of all the fowles of that Country. There are of them in Merrimack River, and in other parts of the country, greate store at the seasons of the year. The flesh is not much desired of the inhabitants, but the skinned may be accompted a commodity, fitt for divers uses, both for fethers, and quiles."⁴ The swan is also mentioned by other early writers as a common bird of the whole Atlantic coast, although for many years few have been seen north of New Jersey, and it has, in comparatively recent years, greatly declined in abundance throughout the region south of the Great Lakes.

The white pelican is also mentioned by several writers as a former inhabitant of New England, as well as of the region more to the southward, but of late it has occurred north of the Potomac only as a straggler or so called "accidental" visitor; yet from its present known range in the remote interior it seems reasonable to suppose that it may have been formerly a common bird of the Atlantic coast as far north at least as Maine. The snow goose was

² Hakluyt's *Voyages*, new edition, vol. III., p. 302.

³ New English Canaan, p. 69.

⁴ *Ibid.* p. 67.

also a common winter visitor southward to the Middle Atlantic States, but is now, even in New England, of rather uncertain occurrence, while the other geese and ducks were so abundant that the early colonists had no trouble in supplying their tables by visiting the nearest pond, river or inlet.

The herons, nearly useless as food, have suffered an immense decrease in number, mostly through very natural causes, but often through wholly reprehensible acts of wantonness. Many have of late been destroyed for their feathers where, in Florida especially, the havoc made with these poor defenseless birds is a subject of painful contemplation and a disgrace to the age. The poor birds are attacked at their breeding grounds, and hundreds are slain in a few hours by single parties, whose only use of them is to secure the beautiful plumes with which nature has unfortunately adorned them. In this way colony after colony is broken up, the greater part of the birds being actually killed on the spot, often leaving nestlings to suffer a lingering death by starvation. The few old birds that survive usually abandon the locality where for generations their progenitors had lived and reared their young undisturbed, only to be attacked at some new point the following year. The effect of the wholesale destruction that for the last few years has prevailed in Florida and other portions of the Gulf States, is already apparent in the rapid decrease there of these beautiful birds. The habit most of the species of herons have of breeding together in communities renders their destruction during nesting time an easy matter, their strong parental affection leading them to be neglectful of their own safety when their young are in danger. Disgraceful and inhuman as the act may seem, many a heronry of the qua bird, or night heron, is annually destroyed in mere wantonness in order that the perpetrator may boast of the "cart load" of birds he shot in a single day.

The terns and gulls that form such graceful objects as they course over our bays and harbors or along the sea-coast, have long been subject to wicked and needless, if not wanton, persecution at nearly all their breeding grounds. Nesting on the ground, in communities, on low, barren, sandy islands, they are readily preyed upon by the people of the vicinity, who as "egggers" regularly visit the islands to rob the poor birds of their eggs. First breaking all the eggs found on the first visit, they afterwards daily frequent the breeding grounds and secure the fresh eggs subsequently laid, leav-

ing perhaps a few nests undisturbed toward the close of the season, from which late and probably enfeebled broods are usually reared. This results in a great decrease in numbers among the species so persecuted, and often in their abandonment of favorite breeding grounds for those whose remoteness from man insures them greater security. Some species, as the large herring-gull, have wholly left such exposed breeding grounds, and resort to dense swampy forests, where they place their nests in trees instead of on the ground; a strange departure from their natural preferences, indicative of a high degree of intelligence. While these are among the changes that have resulted from the increase of population, they are brought about by the needless and reprehensible acts of heartless men, discreditable to any civilized community or age. The results of this needless spoliation add nothing to our general wealth or comfort. The birds thus persecuted are harmless species, whose beautiful forms and graceful evolutions one never tires of watching, and whose destruction should be amenable to severe legal penalties. Unless in some way protected, they must soon cease to be summer residents of our coast.

Reference has already been made to the decrease of all kinds of game-birds, but a few words further on this point may not be out of place. In the absence of definite statistics respecting their former abundance, with which to compare their present number, a few historical references may suffice to indicate how great has been the depletion. While the bays and rivers of the Middle States have ever been the great winter resorts of the ducks and geese, these birds were in early times far more numerous at more northern and less favorable localities than they are at the present time at their most populous resort. References to the occurrence of flocks so large as to darken the air, deafening the ears of the observer with the sound of their wings as they rose from the water, are too frequent in the early records to be considered as merely figures of speech. The eastern portion of Massachusetts, from its natural configuration, was never pre-eminently fitted for the resort of waterfowl, yet in the early days of the Plymouth Colony, one writer says that the planters lived during the winter on the roast meat of the native fowls they killed, and that every man had his own duck before him on his trencher. The quaint old Thomas Morton, in speaking of geese, says, "I have often had one thousand before the mouth of my gun," and adds that "the fethers of the Geese that I have killed

in a short time, have paid for all the powder and shot I have spent in a year;" and that he had plenty of ducks and teal in the ponds and rivers about his house. The numerous species of plovers, snipes and sandpipers have undoubtedly decreased proportionately with the ducks and geese. Of these birds, says Morton, referring to them as "sanderlings," "I was much delighted to feede on them, because they were fatt, and easie to come by, because I went but a step or two for them; and I have killed betweene foure and five dozen at a shoot, which would load me home." Josselyn also says of these birds, "I have known twelve score and above kill'd at two shots"⁵ The contrast in this respect of these early colonial times with the present requires no further comment.

Reference has also already been made to the extirpation of the turkey over large portions of its former habitat. There is little now to remind one that it formerly ranged in New England from Maine, southern New Hampshire, and southern Vermont, thence southward, except the tradition of its former occurrence at certain localities. Morton, however, who is more explicit in these matters than most of the other early historians, thus speaks of its former abundance in Eastern Massachusetts: "Turkies there are, which divers times in great flocks have sallied by our doores; and then a gunne (being commonly in a redinesse,) salutes them with such a courtesie, as makes them take a turne in the Cooke roome. They daunce by the doore so well I had a Salvage who hath taken out his boy in a morning, and they have brought home their loades about noone. I have asked them what number they found in the woods, who answered *Neent Metawna*, which is a thousand that day; the plenty of them is such in those parts."⁶ Josselyn thus refers to their early decrease: "I have also seen threescore broods of young Turkies on the side of a Marsh, sunning themselves betimes, but this was thirty years since, the English and the Indian having now [1672] destroyed the breed, so that 'tis very rare to meet with a wild Turkie in the Woods."⁷

Our markets are now periodically so well supplied with wild pigeons, and such numbers of them are occasionally reported at

⁵ Voyages to New England, p. 102.

⁶ New English Canaan, pp. 69, 70.

⁷ New England's Rarities, p. 9.

their different roosting places, that it would seem that their extirpation is far distant, if indeed they can as yet have at all diminished in number. Yet their abundance is evidently far less now than formerly, and a moment's reflection on the wholesale destruction they have annually suffered for the last two centuries leads one to wonder that so many still exist. Doubtless no other bird of their size was ever so numerous in the United States as was this species in early times. The accounts given by Wilson and Audubon of the numbers formerly seen in Kentucky and other of the interior States has to some degree made us familiar with their former astonishing abundance at certain localities. Yet the reports given by these naturalists are eclipsed by the accounts given by writers of the seventeenth and eighteenth centuries of their numbers over districts where they are now of comparatively infrequent occurrence. Strachey, speaking of their abundance in Virginia in 1610, says: "A kind of wood-pidgeon we see in the winter-time, and of them such numbers as I should draw. the credit of my relation concerning all the other in question, yf I should express what extended flocks, and how manie thousands in one flock, I have seen in one day, wondering (I must confess,) at their flight, when, like so manie thickened clouds, they (having fed to the norward in the day tyme) retourne againe more sowardly towards night to their roust; but there be manie hundred witnesses, who may confirm this my report yf herein yt testifieth an untruth."⁶

It appears from the testimony of other writers that at about this date they occurred in similar numbers at various points from Virginia to Massachusetts. Morton, writing a few years later of New England, refers to "millions of turtle-doves on the green boughs which sate pecking of the full ripe pleasant grapes that were supported by the lusty trees." Watson relates that in early times such immense flocks of pigeons passed over Philadelphia that they "obscured the sun for two or three hours," and were killed in hundreds with sticks by people standing on the tops of the houses, and that they were "brought into the city by cart loads." Makins, in a poetic description of Pennsylvania, written about 1729, says:

"Here, in the fall, large flocks of pigeons fly
So numerous that they darken all the sky."

⁶ *Historie of Travaile into Virginia, Hakluyt Soc., p. 126.*

Watson also states that "Hector St. John, of Carlisle," refers to pigeons being so numerous in 1782 as to darken the sun, and says that as many were sold for a penny as a man could carry home. They are also reported to have appeared about Philadelphia again in 1793 in similar abundance.

Lewis states that soon after the settlement of Lynn, Massachusetts, "the wild pigeons are represented to have been so numerous that they passed in flocks so large as 'to obscure the light,' and continued flying 'for foure or five houres together,' to such an extent that a person could see neither 'beginnting nor ending, length or breadth of these millions.' When they alighted in the woods they frequently broke down large limbs of the trees with their weight, and the crashing was heard at a great distance. A single family has been known to have killed more than one hundred dozen in one night with poles and other weapons; and they were often taken in such numbers that they were thrown into piles and kept to feed the swine."⁹ The same writer states that as late as 1829 they "continued to make their annual visits, but their flocks appear smaller every year. Instead of darkening the air, as formerly, by their numbers, the sportsman can seldom find enough to compensate his time."¹⁰

Josselyn says, in his account of some of the birds of New England, published in 1675: "The *Pidgeon*, of which there are millions of millions. I have seen a flight of *Pidgeons* in the spring, and at *Michaelmas*, when they return back to the southward for four or five miles, that to my thinking had neither beginning nor ending, length nor breadth, and was so thick that I could see no Sun, they join Nest to Nest, and Tree to Tree by their Nests many miles together in *Pine-Trees*. But of late they are much diminished, the English taking them with Nets. I have bought at *Boston* a dozen *Pidgeons* ready pull'd and garbided for three pence."¹¹

Williams, in his history of Vermont, thus speaks of the former abundance of the pigeon in that state: "The surveyor, Richard Hazen, who ran the line which divides Massachusetts from Vermont, in 1741, gave this account of the appearances which he met with to the westward of the Connecticut River: 'For three miles together

⁹ Alonzo Lewis's History of Lynn, p. 22.

¹⁰ Ibid, p. 241.

¹¹ Voyage to New England, p. 99.

the pigeons' nests were so thick that five hundred might have been told on the beech trees at one time; and could they have been counted on the hemlocks, as well, I doubt not but five thousand at one turn round.' The remark of the first settlers of Vermont fully confirm this account. The following relation was given me, by one of the earliest settlers at Clarendon: 'The number of pigeons was immense. Twenty-five nests were frequently to be found in one beech tree. The earth was covered with these trees, and with hemlocks, thus loaded with the nests of pigeons. For an hundred acres together, the ground was covered with dung to the depth of two inches. Their noise in the evening was extremely troublesome, and so great that the traveler could not get any sleep where their nests were thick. About an hour after sunrise, they rose in such numbers as to darken the air. When the young pigeons were grown to a considerable bigness, before they could readily fly, it was common for the settlers to cut down the trees, and gather a horse-load in a few moments.' The settlement of the country," continues Williams, "has since set bounds to this luxuriance of animal life,"¹² they having in a great measure disappeared from that section of the country.

Less than a generation since the destruction of pigeons by means of nets was very general throughout the North eastern States, the sale of the birds thus captured forming quite a source of income to the few in each neighborhood who engaged in it. The capture of several hundred dozens in a season by a single person was not unusual. Of late, however, they have rarely appeared here in numbers, the greater part seen in the Eastern markets being shipped thither from the West.

While the transformation of the country from its primitive to its present condition has been necessarily disastrous to the bird-life that formerly occupied its forests and interval lands, or peopled its numerous lakes, rivers and maritime waters, the unrestrained destructive proclivities of our people have added greatly to the needless sacrifice of our feathered associates. In many cases the early settlers were compelled, in self-protection, to wage an exterminating warfare upon many of the larger rapacious beasts, and eagles, hawks and owls were commonly included in the doomed list of animals,

¹² The Natural and Civil History of Vermont, p. 114.

the destruction of which not only met with popular approval, but was encouraged by rewards offered by the local governments. To these were commonly added crows, jays and the different species of black-birds, but in some cases also other species of the smaller song birds. The robin and other kinds of thrushes have often been on the list of proscribed species. The records of the different towns show that large sums were often paid in premiums for the destruction of crows and blackbirds. In early times these birds were so numerous that they proved a great annoyance, taking to themselves a large share of the maize crop. For this reason they were currently known in many sections as "maize-thieves." In 1697, on March 8, the town of Lynn, Massachusetts, voted "that every householder in town should, sometime before the fifteenth day of May next, kill or cause to be killed, and bring the heads of them, at or before the time aforesaid, twelve blackbirds" to certain persons named in the act, a refusal or neglect of which entailed a fine of three pence for each black-bird less than the number specified.¹³ In Norwich, Connecticut, early in the eighteenth century, a half-penny a head was paid for every blackbird or crow killed in the town, and, though the amount offered was so small, it is stated that it formed a considerable item of expense to the town.¹⁴ Kalm states that in Pennsylvania and New Jersey a premium of three pence a dozen was settled by law for "dead-maize thieves." The desired reduction in their numbers seems to have been speedily effected in New England with results little anticipated by the inhabitants. Kalm says that he was told by Dr. Franklin in 1750 that "by means of the premiums which have been settled for killing them in New England, they have been so extirpated that they are very rarely seen, and in a few places only." In the summer of 1749, however, an immense quantity of worms appeared in the meadows and did great damage, so that the people gladly abated their enmity of the maize-thieves, believing that these birds lived chiefly upon the worms before the maize was ripe, and thus kept the worms in check. The hay crop was that year almost wholly destroyed, so that hay had to be obtained from Pennsylvania, and was even imported from England.¹⁵ The present number of these birds, including both the purple

¹³ Lewis's History of Lynn, p. 186.

¹⁴ Miss F. M. Caulkins's History of Norwich, p. 130.

¹⁵ Kalm's Travels, Forster's translation, Vol. II., pp. 78, 79.

grackle (*Quiscalus purpureus*) and the red-winged blackbird (*Agelaius phoeniceus*), is far less—probably many hundred-fold less—throughout a large part of the United States than it was two centuries ago, when in fall and spring they assembled in such immense flocks as “to darken the air.”

The periodical competitive squirrel and bird hunts, once so popular and so indiscriminately destructive of every thing that wore either fur or feathers, are fortunately now, in many localities at least, things of the past. A favorable reaction has in recent years set in, resulting in the passage of laws by most of the States and Territories for the better protection of game and for the protection of the so-called “beneficial” birds. In the main these enactments are well adapted to the objects in view, though often in their attempted discrimination between “beneficial” and “injurious” species, betoken a lamentable lack of any proper knowledge on the part of the legislators of the subject respecting which they are called upon to legislate. In too many cases, however, they fail of their object from the want of an intelligent public opinion to ensure their enforcement. In the immediate vicinity of the larger cities it may be unsafe for pot-hunters and ambitious youngsters to openly indulge in the indiscriminate slaughter of the smaller song-birds, or to shoot grouse or woodcock out of season, but in the rural districts the case is generally far otherwise. Here the country lads and idlers destroy at all times such birds as their fancy or their love of “sporting” may dictate. The petty inroads upon the garden or grain-field made by a few species of otherwise highly beneficial song-birds is considered ample cause for a murderous onslaught upon a dozen or two of our most useful and ornamental species of birds, and the numbers annually killed in this way throughout the country is undoubtedly rapidly diminishing the representatives of a considerable number of our practically harmless birds. The indiscriminate destruction of the nests and eggs of all the birds found in the suburbs of our larger towns by the irrepressible urchins of the lower classes, merely in wanton cruelty, is, however, an evil of no small magnitude and one not easy to remedy. Add to this the inroads made by thousands of worthless feline pets upon both the young and the old birds that nest in the gardens and cultivated grounds in our larger villages and towns, and it becomes almost a matter of surprise that our feathered neighbors survive at all in such

localities, and that the increase of noxious insects is not far more rapid than it is. Not only are all of our smaller birds worthy of the most stringent protection from an esthetic point of view alone, but especially from their being the natural enemies of the increasing hordes of noxious insects that make such sad havoc with every species of vegetation.

The custom that has prevailed in the rural districts ever since the settlement of the country of shooting certain kinds of thrushes, jays, sparrows, and blackbirds, and even some of our most useful species of flycatchers, because they now and then steal a few berries or cherries from the garden, or destroy a few young blades of corn or other grain, or now and then seize upon a luckless bee in procuring their varied insect diet, has undoubtedly caused a needless and harmful decrease in the number of the feathered inhabitants of our orchards, gardens, fields and pasture-lands, far more, doubtless, than has resulted from the changes naturally attending the agricultural development of the country. The numerous game protective associations that have originated during the last few years are doing much for the proper limitation of the destruction of game and fish, but the decrease of the smaller song-birds does not so strongly appeal to their self-interest. Societies should be formed whose express object should be the protection throughout the country of not only these practically innocent and pleasure-giving species, but also the totally innocuous herons, terns and gulls, whose extirpation is progressing with needless and fearful rapidity. Perhaps no more legitimate or appropriate work than this could engage the attention of the associations for the "Prevention of Cruelty to Animals." Unless something is soon done to awaken public opinion in this direction, and to enlist the sympathies of the people in behalf of our persecuted birds, the close of the next half-century will witness a large increase in the list of the wholly extirpated species, and a great decrease in numbers of others that are now comparatively abundant. While science proves capable of easily restocking our exhausted streams and ponds with fish, it is far otherwise with birds and mammals, which it is beyond the power of man to replace when once exterminated over a large area.

J. A. ALLEN.

FROM THE NOTE-BOOK OF AN ISHMAELITE.—III.

THE display of Japanese and Chinese wares at the Centennial Exhibition was very wonderful and very wearisome. No intelligent student of history, I think, could come away from them without thanking God for the Greek race and the artistic lesson it taught the civilized world,—the golden canon *μηδεν ἄγαν*, or as the Latins translated it, *ne quid nimis*. The productions of every people that has not taken that lesson from the Greeks, will be found to be overloaded with ornamentation, and that of a sort which is independent in its parts, instead of being bound together in the unity of a design which subordinates the parts as “details.” Greek art has the unity of an idea, and it boldly sacrifices everything which does not contribute to the one effect aimed at. The lack of all ideal purpose and unity keeps oriental art—whether it be the Mongolian, Turanian or Aryan—on the level of the commonplace. And when the artist seeks to rise above that level and to escape from its monotony, he runs headlong into the grotesque and the *bizarre*. The popularity of such things can be only the fashion of the hour, agreeable for a time because they surprise us by their outlandishness. But in the long run they cannot but prove tiresome to the last degree to any one who has tasted of European culture. To those, indeed, who make the collection of such things a speciality, they will preserve their interest permanently, for nothing can dampen the enthusiasm of a connoisseur. Things in themselves as devoid of beauty of color and grace of form as were the costliest pieces of China in the French exhibit, are to the specialist “a joy forever.” But plain people of unsophisticated tastes will always vibrate between classic and romantic as the two species of art which can stand on their own merits.

It is curious to notice the firm faith that people, and especially good people, possess in their own power to remingle the elements of human society in a manner superior to that in which its Author has already mixed them, and with much finer results as regards the promotion of those interests which they regard as especially His own. This modest belief was at the root of the monastic institution, and because the monkish orders were the first great educators, we retain the separation of the sexes in our schools and colleges, and in some of

our popular libraries. But our Protestant churches and parties are just as confident of their reorganizing powers. Since the Church itself, by its very nature is incapable of being adapted to such plans, and must always remain equally open to all sorts and classes of persons, the resort is had to artificial associations which stand outside of it, but undertake this or that part of its proper work. The normative idea of these bodies is the selection and separate organization of some one class or element of society—its young men for instance—as possessed of powers and capacities which they can better bring into activity when they are sundered and isolated from all those entangling alliances with the rest of society in which their Maker has unhappily involved them. Among the results of this line of action are the occurrence of very posing questions in the management of these artificial bodies. Human nature is found to be most easily managed in the natural mixture of its elements, since each of them exerts a wholesome but unperceived restraint upon the rest. For instance, when young men engage by themselves in social amusements, they are found to devote themselves to them with such an abandon, and to be aroused to such a degree of passion by defeat, as will defeat the true ends of amusement, viz., sociability and relaxation. Hence the rapid degeneracy of those in which women do not share, and hence also the wise jealousy of all sorts of amusements shown by the most far-seeing managers of the Young Men's Christian Associations.

Another very natural result of these artificial organizations is the weakening of those churches whose members most affect them. Professing to supplement the church, they tend very rapidly to become substitutes for it. They deduct something from the popular idea, and even from the church's conception, of what the church is to undertake and to do; they suggest the question, "What is the use of a church at all, if all this can be done outside of it?" Those churches whose members hold aloof from such movements grow rapidly in numbers, and in unity and activity of action, and generally entertain a much higher conception of what the church's sphere and duties are.

THE attempt to control our politics by secret societies, which was renewed at this last election, has failed even more rapidly and thoroughly than any preceding one. The candidate who was to be

especially benefited was wise enough to abstain from any word or sign which would commit him to the acceptance of such support, and his friends took great pains to assure the public that he and they looked with disfavor upon it. This indicates a wholesome instinct in the popular minds. It shows that they look upon secrecy as an ignoble instrument and one unworthy of a free people.

But is it not a bad sign that secret societies of other sorts grow so rapidly in numbers? The Masonic order has completely recovered the ground it lost in the period beginning with 1829, when so many lodges were dissolved and so much popular antagonism aroused. And besides it, we have imported half a dozen others of lesser note, and devised at least as many more, so that it is now, in some parts of the country, exceptional to find any one who does not belong to one or more such organizations. In a thriving suburb of our own city for instance, there is but one man come to years of discretion who is not either a Mason or an Odd Fellow.

Without giving credence to any of the current objections to these orders, I cannot but regard such a state of things as eminently undesirable. Indeed, nothing so much inclines me to so regard it as some of the professions and claims put forward in behalf of these orders. No doubt the social and political instinct which draws men together, does find a pleasant exercise and pretty free scope within the lodge. But the amount of that instinct in any finite mind is of necessity limited. If all the *esprit de corps* a man is endowed with is thus exhausted within the circumscribed and artificial bounds of the order, he cannot but lose in point of philanthropy, of public spirit and of patriotism. His mind cannot energetically embrace those larger objects of fraternal and filial regard, his country and the human race. In colleges—to take a parallel case—it is found that the influence of secret societies is fatal to all class feeling, as it breaks up the class into petty cliques which act together on all occasions.

And experience shows that it is in the decline of society that secret associations do most abound and flourish. Coleridge finds an intimation of this truth in the words of Isaiah: "Associate yourselves, oh ye people, and ye shall be broken in pieces!" seeing in them a reference to the state of Jewish society in that day, when the natural bonds of society were dissolving, and the associative tendency was at once an index of the process and itself a solvent. That

was certainly the experience of the Greek republics; Athens was thoroughly honey-combed by secret organizations in her years of decline and disaster, and they contributed in no slight degree to her ruin. And are we not to seek in this new state of things among us an explanation of some part of the apathy with which public affairs seem to be regarded by multitudes of our people, and which makes it possible for political managers to control the nominations for office? It is, I concede, but one out of many of the causes which have contributed to that apathy. The first generation of the Republic were fully on the alert as regards political interests. They were devoted to nothing else, unless it were money-making. They regarded art, literature and the like as ornamental appendages to society, and would have put our culture-worshippers into strait-jackets. The church and Christianity they spoke of in very much the terms in which Washington's Farewell Address speaks of them—as very excellent police arrangements. Life was simple, or at most, duplex for them; it was filled up with business and politics, and they had plenty of time and energy for both. But it has grown complex for us. New interests—literature, art, science, religion—have arisen on every side of us, and as yet none of them have been able to identify themselves with the public welfare. A man is not, as a rule, a better, but a worse, citizen, for becoming devoted to any of them. Even the churches of the land, which are relatively eight times as strong to-day as they were a hundred years ago, have not done their duty in strengthening the devotion of their members to the national welfare. Rarely have Isaiahs and Jeremiahs filled their pulpits, and pleaded for the good of the land; and when politics have been made the theme, it has frequently been with a narrowness of vision and a partizan bent of judgment, which made the judicious mourn.

Now do not these secret associations add but one more to the distracting forces which diminish our patriotism and our public spirit? And can they plead the necessity which can be pleaded by the other interests we have specified? And as regards the others, we have the experience of the past to warrant us in expecting that they will yet come to their right mind, and become supports and pillars of the commonwealth. But we see no reason to hope that secret associations, however excellent the intentions of those who organize and control them, will ever be anything but a disintegrating element in society.

WHEN the Convention which drafted the Constitution of the United States was in session in this city, Benjamin Franklin urged that no Congressman should receive any salary from the national treasury. He wished to see them put upon the footing of members of Parliament, who serve for nothing, or must look to their constituency for voluntary support if they are not rich enough to live "at their own charges." The custom of the constituencies paying members of Parliament was once very general, and was regulated by law. The member elect, on receiving the news of his return from the Mayor of the borough or the Sheriff of the shire, made his application to that officer, and a special tax was levied upon the borough or shire for the purpose. At present the few members of Parliament who receive anything like a salary are dependent upon the purely voluntary contributions of persons in their own party.

Franklin's suggestion is still worth thinking of. I am not of the number of those who deplore the degeneracy of Congress; I cannot but remember that one venerable member of the Continental Congress once remarked to another, "What a precious lot of scamps we were!" But still it is not impossible to believe that the body might be raised considerably above its present level without experiencing any alarming giddiness. And it is not likely that the establishment of Franklin's rule would lead to the selection of a better class of men? It would make openings for men of wealth, culture and leisure, as the constituencies would naturally prefer candidates who would need no support. It would not exclude from Congress meritorious poverty, for a comparison of experiences shows that a *bonâ fide* workman has a better chance of a seat in Parliament than of a seat in Congress. But it would do very little good unless accompanied by the removal of the restriction which requires that the member shall reside in the district which returns him. Every American citizen should be eligible to any national office to which the suffrage of any constituency may call him.

COLERIDGE says: "There have been three silent revolutions in England: first, when the professions fell off from the church; secondly, when literature fell off from the professions; thirdly, when the press fell off from literature." These three changes were all in the same line, and that line is the one upon which all social evolution moves, viz., the greater subdivisions of labor and of functions.

Another change of the same sort, which is not unlikely to occur, is the complete separation of the bench from the bar, by their becoming two separate professions. Their present relation, as Mr. Maine tells us, is itself an approximation to such a separation. The Roman advocate exercised the most important of the modern judge's functions, since with him and not with the judge all case-law originated. At present the judge and the advocate exercise the most diverse functions; it is the business of the latter to put the best possible face upon one side of a case, and of the former to look impartially upon both sides and decide in favor of one. But we still follow the Roman custom of selecting our judges from among our advocates, *i. e.* after employing a man for twenty years in one line of mental activity, we think him fitted to take up exactly the opposite one. I do not say that our judges have not proved impartial as a general rule, but we continually see instances of the old mental habits of the advocate breaking from under the ermine. And even the best judges would probably have been better had their legal training and experience been different.

Of course, in the event of this change, our judges would still be taken from among our lawyers, but we would have two classes of lawyers, one at the bar and the other not. The latter class, from which alone our judges would be selected, would find plenty of employment in doing the work now done by auditors, masters and referees, and above all in acting as professional jurors in civil cases. The absurdity of entrusting the issue of complex lawsuits to the combined unwisdom of twelve specially ignorant men, who have been selected at hap-hazard from the city Directory, has gone about as far as it ought.

One effect of the change would be to set up a different standard of success for the bar itself. Having no prospect of "elevation to the bench," its members would look upon their own sphere of action as equally elevated with that of the bench. They would measure success in their profession by its own standards and not by one external to it, which is a great gain for any profession.

I do not in the least share in the absurd admiration of China, which we have inherited from its competing eulogists, the Jesuits, and the *philosophes* of the last century. But they are ahead of us

on one point, in that they pay their physician so long as they are in good health, and stop his rations when they are sick. That is certainly the plain, straight-forward and business-like arrangement, and I hope to see the principle of it introduced among Americans also. The physician's function is coming to be regarded more and more as preventative rather than curative. He ought to be the instructor of society in all that pertains to life and health. Our churches should be at his service on one or two nights of every week, in order that he may inculcate upon his constituency better views of living, and the physicians of every ward in the city and every township in the country ought to be organized as a board of health and inspection, with dictatorial powers in summer time and times of epidemic.

Of course he should, at the same time, become a salaried officer of the community, instead of being left dependent upon the fees he receives from his patients. A competent medical board, organized by the government, should have the discretion to say how many physicians are needed in any community, and to appoint these out of the list of applicants, with a salary proportioned to experience and ability. The physician would thus represent the interests of society at large, and would be emancipated from compliance with the whims and oddities of his patients. As it is now, the physician, who is not a professional obstetrician, derives his living from the existence of that which it is his business to destroy. He lives to bring people to health, and if he were to succeed perfectly, he must starve; and yet the morality of the profession, by which we mean its intolerance of disease and its faith in life, is such as puts the other two learned professions to shame. As Prof. F. D. Maurice says: "Though he is continually looking upon disease, the physician *believes* in health. He never for a moment allows himself to regard disease as the ordinary natural condition of man, though no one has so many temptations to do so. He never fancies that he is to enter into terms with it, to acknowledge its supremacy. He has to fight with it, and if he falls half a dozen times, he has to rise up and begin the fight again."

An English literary journal recently pointed out the fact that the most prominent representatives of physical science had on various occasions expressed themselves on the great political issues between

democratic and personal government, and that without an exception they had favored the latter, sometimes with a vehemence of expression which showed an unexpected depth of conviction. On the mere surface of things this may seem surprising, but when we look below the surface we find it not only natural but in some sense necessary that they should be on that side. Democracy represents the educational which is also the spiritual theory of society, in opposition to the hereditary or natural theory. It assumes that men in spite of inherited ignorance and incapacity can be made good and intelligent citizens by education, and especially by the educational influence of free institutions. Its faith in education corresponds with that of the theology in regeneration. It believes that there are forces in the world powerful enough to make a new departure possible to men who have not yet shared in them, and that the experience accumulated by mankind can be communicated laterally as well as transmitted vertically.

But science does and must lay emphasis upon what is natural in man's constitution, as opposed to what is spiritual. It believes that character is acquired and shaped only by the slow accumulation of experience from age to age, and by generation after generation. And finding the result of the evolution of society as far as reached is a great inequality of political capacity, it gives us no hope of redressing this inequality by any sort of reflective action. It says that the thing which hath been is the thing which will be, at least for long periods in the future. The lines of human descent and transmission in which we find capacities of any sort now descending, are those in which they will continue to descend. And the systems of government which recognize this by allowing power to run in the hereditary lines of aristocracy and monarchy, are those which are most conformable to the order of nature, which science disclose.

In fact, no stronger argument for aristocratic government was ever drawn up than that which is furnished by Capt. Galton's book on this subject, and Capt. Galton only applies the principles of Mr. Darwin's philosophy to a social question. Nor does it in the least weaken the force of the argument that he finds the grand-sons of great men more usually distinguished for ability than the sons. For an aristocracy does not require for its vigor that more than a fair proportion of its members in any one generation shall be men of ability, and the law of transmission is such as to warrant us to expect

that more than half the privileged class of any given date will be men of more than average powers. It is indeed an argument against an hereditary despotic monarchy, for a despot should always be a first-class man, and an able father on the throne is likely to raise expectations which his son will certainly disappoint. But for a limited monarchy a first-class man is not needed on the throne, if there be any practicable method of surrounding the throne with first-class men.

These views contain truths of importance, and such as are only too likely to be ignored by the people of free countries. We ignored them for instance in reconstructing the Southern States on the basis of negro suffrage, expecting that the negro would at once, and by virtue of the spelling-book, take his place along side the white with his millenniums of political experience and discipline, which reach back to the days when our fathers separated from those of the Persians and the Hindoos on "the Roof of the World." They had been previously ignored by the Democratic party in establishing a universal and unqualified suffrage throughout the Union, and in sweeping away all those methods of sifting out the best and most capable citizens as the only voters, which had been formerly in vogue and were favored by the Federalists. And every statement of the ultra-Democratic theory of political organization is in sharp opposition to science, which continually reminds us that "it isn't all in bringing up."

But science stands here for but half the truth; Democracy for the other half of it. Man is not merely a part of nature, governed by the laws of necessary action which hold sway throughout the natural domain. He is a spirit as well, possessed of freedom of will, and therefore a fitting subject of the spiritual process called education. From being sordid, selfish and pleasure-seeking he can be made full of public spirit and of a just and high appreciation of the value of life's relations and the sanctity of its duties. He may at present be governed by animal impulses and may seek no higher objects of gratification than those which gratify his animal desires; but in his deepest self there lies a better self, a spiritual nature which seeks communion with its human kin in the relationships of life. Nor can we concede that those higher qualities which especially fit men for the duties of political life are ever merely the inheritance which one generation receives from another; the receivers must willingly

cherish them by a course of conduct similar to that which acquired them, or they will vanish like the morning's mists. They also are held by a spiritual tenure, a tenure whose very terms imply the existence of that spiritual nature which education implies and science ignores. Science is right in ignoring it, for it does not come within her sphere. She is the student of nature. To determine "man's place in nature" is her function, and her representatives very properly resent the interference of the devotees of philosophy or theology or politics with that function. And she is doing no disservice when she points out the analogies in the transmission of political insight and social capacity to what is seen in the transmission of the simplest and humblest experiences of the lower forms of life. But to determine "man's place above nature" is the work of the philosopher,—a work which is as much preliminary to political as to theological science. If man have no such place, then Haeckel and his *confrères* are right, and Democracy is a delusion and a snare.

EVERY now and then the churches and the religious newspapers lift up their voices in protest against the laxity of the divorce laws in this or that State, the burden of the complaint being that the Legislatures of Christian communities do not enforce the Christian law upon the subject and forbid all divorces upon grounds not allowed by the New Testament as valid. It seems to me absurd to expect any community to enact the restrictions laid down in the New Testament, and to hold every marriage binding until it is dissolved by death or adultery; for those restrictions were never meant to become part of the law of any land. They are addressed, not to civil communities, but to the conscience of the individual Christian; they are part of that law of Christ which is binding upon all professed Christians, and their proper mode of enforcement is by exclusion of offenders from the fellowship of the church. For look at the connection in which they occur. They are part of the sermon on the Mount, whose adoption as part of the law of the land would forbid prosecutions for assault and petty larceny, and leave the faces and the garments of the community open to the assaults of any rogue who chose to make free with them. Where the laws of the State leave, as do those of Indiana, openings for gross deceptions on the part of the wife or husband who sues for a divorce, they ought to be amended and that speedily. But it is not the duty of any State to confound

sins with crimes, nor to stamp the marriage with more sanctity than any other contract, except on the ground that the general interests of society demand restrictions upon its dissolution.

The true reason for this absurd outcry is found in the absence of church discipline from nearly all the denominations. The old Protestant divines, applying to the church the words of the Apocalypse "the city lieth four-square," used to say that the four walls were Doctrine, Worship, Government and Discipline; but the fourth wall is now in most instances leveled to the very ground. In few of our churches is there any means of bringing to book a public offender against morality, unless he be a clergyman; and the few that do possess such means are greatly cramped in exercising them, because an offending member need only transfer his church connection to some other quarter to be received with open arms. In the Episcopal church for instance, there exists as much sensitiveness and conscientiousness on this subject among the clergy as anywhere; but no clergyman of that church has the power to exclude from the communion a person who has obtained a divorce on the most trifling grounds, and has at once remarried; nor can the minister refuse to read over this or a much grosser offender the burial service which speaks of the deceased as one of whose immediate and complete glorification there is no doubt.

The practical importance of this remissness is found in the fact that a community in a formative and transitional state cannot afford to dispense with any of the weakest and slightest safeguards of social morality. If the churches really and uniformly exercised a supervision of the lives and morals of their members, the result would be felt most beneficially throughout the community. It would then make little difference whether the State was lax or stringent on such subjects as divorce, for the churches would soon set up a standard of social ethics which those outside as well as inside their membership would have to conform to.

J. D.

THE VALLEY OF MEXICO.

At a mean height of 7,212 feet above the level of the sea, and in the central plateau of the Mexican Republic, are found the fertile tracts of land which constitute the valley of Mexico.

In this locality nature has assembled with unusual prodigality those accessories which the conception of the artist associates in a beautiful landscape with the grandest effect; the most picturesque lakes, fertile fields, and mountains crowned with perpetual snow, decorate this privileged spot. The presence of so many beauties could not but detain here the descendants of those travelers who in the year 1160 had parted from Aztlan, their country, in search of the place which their oracles and their necessities indicated to them, in order to establish their encampments and found their habitations. The Aztecs made a fit selection in that charming valley, after having traversed a great part of the territory which now belongs to the Republic of Mexico.

The surface of land, which more properly ought to be called the "Valley of Mexico," is situated between $19^{\circ}5'$ and $19^{\circ}46'$ north latitude, and between $0^{\circ}13'$ longitude to the east and west of the meridian that passes through the City of Mexico.

Beautiful and elevated cordilleras of mountains surround the valley. On the east is seen the Sierra Nevada, some of its summits reaching above the snow-line. In all seasons the Popocatepetl and the Yxtacihuatl show their white tops, and in winter some other companions are also covered with the white garb.

The Popocatepetl, seen from the capital of Mexico, appears like an enormous cone of a blue color at its base and silver-white at the apex. This effect is more noticeable at night when the moon, with its pale light, intensifies the brilliancy and whiteness of the snow, and when the blue color of the mountain is mingled with that of the horizon; the cusp appears then like a silvery cloud hanging in the air.

The Yxtacihuatl is smaller than the Popocatepetl, but its summit also towers to the region of snow. The elongated figure which it forms, and the situation of its most noticeable accessories, gave to it that expressive name, which in Aztec language means *White Lady*,

because the most elevated crest of the mountain looks very like a human body lying horizontal and covered with a white tunic.

The whiteness of the snow in these mountains mingled with the tints of the twilight makes a fine effect; and at sunset they take the color and metallic splendor of polished copper. The Popocatepetl has a height of 17,716 feet, and the Yxtacihuatl 15,702 feet, above the level of the sea.

The cordilleras of the southern portion of the valley are also very picturesque and lofty, but only in winter the snow appears on their principal cone, which is known under the name of "Cerro de Ajusco." In other parts of the valley are found only eminences of less importance, but generally covered with oaks and other large trees, as is the case in the cordilleras of the west.

The ground which forms the valley in various directions is flat, and in others declines gently. The most conspicuous accessories are generally of little importance, with the exception, perhaps, of some prominences and porphyry hills that are seen there.

A carpet, of a beautiful emerald green color, formed by various kinds of grasses, at all seasons covers the wet grounds and the flanks and *talwegs* of the mountains, where the tillable land exists. In summer, a new generation of plants spring up, and their flowers adorn, in a great degree, the grass-plot. The brilliant corollas of the *Synanthera* and the *Malvaceæ* form the most varied and beautiful groups, which shine upon the green part of the field like the stars upon the blue sky; and the *Cosmos* and the *Helianthus* show their brilliant flowers constantly directed towards the sun during the daylight.

If the terrestrial *Flora* of the valley of Mexico is rich and varied, that which belongs to the lakes, to the canals, and to the other deposits of water, is not less so. The *Nymphaea*, or white *Nenufar*, extends its wide and brilliant leaves and opens its elegant flowers upon the surface of the water; and the *Sagittaria* and other plants are found almost constantly associated with it.

In the orchards and gardens of the city of Mexico, and in other places in the valley, are always multitudes of flowers, and the trees are covered with leaves all the year round. It can be said that there the effects of winter are not felt, or that they are so insignificant as to scarcely interrupt in any way the growth of vegetation.

The period of repose in some plants is excessively short: the

Fraxinus and other trees, which lose their foliage in the month of December, recover it at the end of January or in February.

Summer, likewise, is not rigorous in the valley: the climate is temperate, and it can be said without exaggeration that an eternal Spring reigns there; for while the latitude of the valley corresponds to that of the warm climates, the great height at which it is found above the level of the sea modifies its effects and establishes a convenient compensation. The mean temperature of the City of Mexico, which is also that of the valley, is in summer 65° F., and in winter 40° F.

The principal lakes of the valley of Mexico are five: Texcoco, Chalco, Xochimilco, San Christobal and Xaltocan; their presence embellishes to a still greater degree those fertile lands. In some of them, as in some of the canals that traverse the suburbs of the capital of Mexico, are seen multitudes of canoes, which carry the products of the vicinity to the markets of the city. The great number of flowers which are used there during Spring, come from the gardens situated on the borders of the lakes: the flowers are also carried to market in the canoes, and these floating piles of roses moving upon the bosom of the waters present a beautiful spectacle.

In the waters of the lakes are multitudes of fishes, and in the borders live species of aquatic birds. These waters are generally saltish, and from them are extracted various salts of soda, which also exist in abundance in the north-eastern portion of the valley. Vegetation is rare, or is altogether wanting, only in those places in which the salts of soda are abundant.

Quite a number of picturesque villages, some important towns and great "calzadas" (causeways) covered with magnificent trees, fully occupy the valley.

The Castle of Chapultepec is situated three miles from the city of Mexico towards the west, and stands upon an eminence composed of red porphyry. It is surrounded with beautiful and gigantic sables (*Taxodium Distichum*) which were witnesses of the reign of Montezuma the Second.

The *Tillandsia*, that parasitic plant which hangs from the branches of the trees, gives the latter a more venerable aspect, forming large and oscillating masses of a whitish gray color. All the trees of the forest of Chapultepec present this character, which corresponds with their colossal height, and their actual old age.

The lithological study of the mountains above mentioned, and of the rocks which constitute the valley, is of great importance to geology. The cordilleras which bound the valley are formed of basalts, trachytes, and compact and excoriate lava. They were produced by the great volcanic movement, which, to my judgment, originated and reached its maximum of intensity in the tertiary period, continuing in the post-tertiary, and even manifesting itself in the present geological period. Great masses of these rocks are placed beneath the post-tertiary deposits, and others are scattered on their surface, as is to be observed in the vicinity of the town of San Angel, and as far as the city of Tlalpam.

The level grounds are constructed of tufas, marls, and other lacustrine rocks, which contain the remains of post-tertiary animals.

The elevation of the plateaus in which the valley of Mexico exists, the nature of the rocks which surround the valley being considered, it may be inferred that before the tertiary period the valley did not exist, and that its walls were raised at that time, leaving great cavities which were filled gradually by the deposits of the lakes which then occupied those vacancies. Perhaps the actual lakes are nothing more than the successors of those which existed in that age, and which, being subject to the same laws, are successively yielding their places to the emerged land.

A very exact representation of the valley was to be found in the Mexican section of the annex to the Art Gallery, in the Centennial Exhibition. The view is taken from the hills of Guadalupe, which are situated on the west, three miles from the City of Mexico, and embraces a noticeable extension of ground.

The observer, being opposite the painting, sees on the left the Popocatepetl, the Yxtacihuatl and a great part of the Sierra Nevada; in front, the cordillera of Ajusco is perceived. On the centre and towards the sides are seen the level grounds of the valley, some of its picturesque lakes, the causeway of Guadalupe, the City of Mexico, the Castle of Chapultepec, and other important accessories. The clear and beautiful sky well represents that over the City of Mexico, and towards the cordillera of Ajusco is perceived a light rain, which represents those that are frequent in the capital during the summer.

The painting is by Sr. Don José M. Velasco, who is one of the most intelligent pupils of the Academy of San Carlos, in the City of Mexico.

MARIANO BARCENA.

Mexican Commissioner to the International Exhibition.

THE CONDITIONS OF ADMISSION TO THE BAR.¹

AT a period when both of the candidates, and most of the aspirants, for the Presidency, are lawyers, when members of this vocation fill a majority of the offices of government, men may well pause to enquire what conditions attend the entrance to a profession from which such high offices are filled; whether the portal is properly guarded to prevent the unworthy from entering, what assurance is given of the education and honor of its members, and what security afforded that the privileges and immunities conferred will be well employed. If the enquirer recurs to the cases of impeachment which have lately terminated by leaving vacancies on the bench, and to the numerous defalcations among attorneys, he is filled with alarm, lest the body which supplies most of the civil offices of the government has become corrupted, and lest the profession in which the highest trust is reposed is unworthy of the confidence it enjoys. There can be no better time than the present to review the condition and requirements of the bar, to reconsider the relation which it bears to the state, and to take care lest it receive anything of harm.

It may be stated as an axiom that the bar of a country will be what the people make it. For, while it is true that the mere existence of a body of men trained to jurisprudence will tend to elevate the community in which they live, it is also true that no such body can as a whole resist the temptations offered by a corrupt society, that men will always be found willing to pander to the worst intentions, and able to devise schemes of fraud and wrong which the arm of remedial justice cannot reach. It is important, therefore, that a high standard should be required by the people. The critical spirit within the profession developed and fostered by the *esprit de corps* created by bar associations, should be aided by a determination on the part of the public not to tolerate ignorance or misdoing in their legal advisers, but to visit the one with rebuke, and the other with punishment. No such action can, however, be reasonably expected so long as the relation which the profession bears to the community is doubtful or misunderstood. If the law is a business to be followed like any trade, the sole object of which is success in amassing wealth,

¹A paper read before the American Social Science Association, at Saratoga, in September, 1876, by Lewis L. Delafield, Esq., of New York.

no one has a right to complain of the ignorance of the adviser he himself selects, and the doctrine of *caveat emptor* applies. Few persons would perhaps agree with this proposition, but the premises to which it forms the logical conclusion present a common and a dangerous error. There is a prevalent notion among laymen, which is shared by many professional men and has found expression from certain judges, that the gates to the bar should be wide open, and easy admission allowed to all applicants. It is urged by those who maintain this opinion that no harm can come by the admission of incompetent persons, that men soon find their level, and will not be able to obtain employment unless they prove themselves capable and worthy. Such reasoners claim that the doctrine of free trade applies, and insist that their opinions are public spirited and generous when compared with the selfish views of those who being themselves within the pale, wish to exclude others. A little reflection shows that this argument is neither public-spirited nor generous, and can only be excused by referring it to the amiable weakness of inability to say *no* when *yes* is desired. Lawyers are intrusted by the state with a great and valuable monopoly and unusual immunities. They alone are allowed to represent the people in the courts in the pursuit or defence of fortune; they alone oppose a barrier to persecution and oppression, and almost every man at some period of his life must depend upon them in the defence or pursuit of property, or life, or rights dearer than either. No friend, no relative, however dear, no doctor however learned, is, in those emergencies, permitted to intervene. The state distinctly says that in all these matters the citizen who cannot protect himself shall employ a lawyer and none other. The monopoly is absolute, the privilege is exclusive. Apart from other considerations, it is here that the law draws a distinction between the bar and all trades and occupations. The citizen may freely engage in any business or trade without reference to his fitness for it. No one need employ or trust him. If he fails and drags down others with him, their misfortunes are due to their own act, and not to any mandate of the law. His success or failure depends upon himself and his own exertions.

The argument employed in favor of free admission is drawn from a supposed but mistaken analogy between the profession of the law and trade. The reasoning is true in relation to all but professional life, but to that it has no application. The law is not a trade, and

it is not to the interest of the people that it should be. But the distinction is artificial. It does not exist in the nature of things, and the law will become a trade unless the people realize the danger in time and insist upon their right to require those qualifications on the part of lawyers which form the consideration for the franchises they enjoy, and without which the state is bestowing valuable rights and receiving nothing in return. Should the objector wish to follow the subject to its root he may urge that the whole system is defective, that no exclusive privileges should be conceded to any class of men, but that each should be allowed to engage in whatever avocation he sees fit. Should he succeed in establishing this proposition, his argument would be sound, and all the learned professions should be thrown open. But it is safe to leave the subject here, protected, as it is, by the practice, opinions and experience of both the ancient and modern world.

Assuming then that the general welfare requires that exclusive privileges be enjoyed by the professions, the next enquiry is upon what terms and conditions should they be granted. Here again the practice and experience of the world agree, that from those to whom much is given, much shall be required. All civilized states confer this valuable monopoly upon the condition that the applicant shall be, and remain, of approved character and learning. The law demands that the advocate shall at all times render his services gratuitously to the poor who need them; that, when required, he act as counsel to the court, and, when assigned, devote his time and ability to the defence of those charged with crime without fee or hope of reward. He is also liable to summary imprisonment and punishment in cases in which the ordinary citizen is free from arrest, and is always subject to the discipline of the bench.

If admission to the bar were generally regarded, as in truth it is, a special contract between each lawyer and the state, by which the former received a valuable franchise for life, or during good behavior, in consideration of special fitness, learning acquired by long study, and high character, can any one doubt that both the office and the officer would be elevated? The standard of professional knowledge and character has greatly varied, at different times and places, as well as the method of ascertaining the capacity of the applicant for admission. But whatever that standard be, it is apparent

that it affords very inadequate protection when we remember that it was applied as well to Mansfield, Romilly, Marshall and Evarts as to Jeffries and his infamous *confrères* in both hemispheres who have disgraced their calling, and all of whom the state has pronounced worthy to receive and generally to retain their offices. The public naturally have lost confidence in the bench and the bar. and have endeavored to supply their places by all kinds of undesirable makeshifts, sometimes taking the form of councils of conciliation and arbitration, and at others of judicial committees which, in all the great branches of trade, mete out a rude justice to their members, and will necessarily in time bring the law into still greater confusion and contempt. This condition of things can only be reversed by convincing the people that it is their interest to submit their differences to the courts, through the medium of trained advocates. And this conviction will never come until the *personnel* of the bar is restored to a high standard. Here then is the point at which reform must begin. The laws regulating admission should be revised, and enforced, and the unworthy excluded and rejected.

A brief review of the laws heretofore in force in the State of New York will show how great the decline has been, and the character of the reform which is needed. Before the Revised Statutes of 1830 the rules forbade the examination of any person who had not served a regular clerkship of seven years in the office of a practising attorney. Four years spent in classical study after the age of fourteen were permitted instead of an equal time of clerkship. After three years' practice the attorney was admitted as a counsellor. In those days, therefore, six years was the shortest time in which a student could become a counsellor, and generally ten years was required. The degrees of attorney and counsellor were distinct, and a separate and public examination was required for each. After the passage of the Revised Statutes these rules were abrogated. The Constitution of 1846 permitted any male citizen of the age of twenty-one years, of good moral character, and possessing the requisite learning, to be admitted. The rules following the adoption of the Constitution prescribed no time of study, no proper inquiry as to character, and admitted any person who could pass a public examination upon the production of a certificate of character. The examinations were generally mere forms, and the bar rapidly degenerated, both in character and learning, from the high standard

it had previously maintained. Between the years 1855 and 1860, Hamilton and Columbia colleges, and the Universities of Albany and New York established law schools. From that time to 1871 these schools did the state good service, reflected credit upon the colleges which founded them, and interposed some barrier to the leveling tendency of the Statutes. Unhappily the law gave to the three principal schools the pernicious privilege of having their graduates admitted to the bar upon presentation of the school diploma, and without the public examination in open court required by the rules. The charters of the schools varied greatly: the graduates of the Hamilton Law School might be admitted whenever they could pass an examination in the school, without reference to the time of their studies, the Albany and University Schools might admit in thirty-six weeks, and the Columbia School in eighteen months, without any public examination. The differences and the privilege were alike unreasonable. This partial legislation naturally led to evasion. The Columbia College School construed the eighteen months required by the statute as meaning academic months, and thus reduced the term to fifteen statute months. In the competition which ensued all conditions of fitness were overlooked, no preliminary examinations were required, the school catalogues announced "that no examination and no particular course of previous study are necessary for admission," and the result was the introduction to the bar of a mass of persons without any liberal education, with barely the rudiments of English grammar, sometimes without being able to pronounce the language, with such a smattering of law as could be gained by a few months' attendance at lectures, and with a self-sufficiency which ignored the maxim of the master "that lowliness is young ambition's ladder." In all the schools the professors themselves conducted the examinations for admission to the bar. Thus the singular spectacle was presented of first inviting all, however unfitted, to study law, and then admitting them to practice upon the report of their instructors. And yet, bad as it was, this mode of coming to the bar was better than the method of admission by public examination, without any time of study being fixed, that prevailed from 1860 to 1871. This apparent paradox is explained by the zeal and ability of the professors, most remarkable in the case of Columbia College, who inspired some of the students in every class with such a love of jurisprudence as was sure to lead to favorable results.

These evils provoked the legislature to pass the act of 1871, di-

recting the judges of the Court of Appeals to establish regulations for admission, and led to the rules now in force which require that the clerk shall have studied three years in the office of a practising attorney, and then be subjected to a public examination upon the whole body of the law. Unfortunately this act did not apply to the law schools: their graduates continued to be admitted as before without public examination, and under the influences and conditions already mentioned. Between the years 1860 and 1875 upwards of 2,400 persons availed themselves of this short cut to the bar. While the act of 1871 was much more in harmony with the public interests than the method of admission by the schools, it also operated, by requiring three years' study, to drive men into the schools, where they could be admitted in a few months. Under this unhealthy impulse students flocked to the schools. The graduates of the Columbia school alone increased from ninety-nine in 1871 to two hundred and ten in 1875. During the four years intervening, this school and that of the University admitted eight hundred and fifty lawyers, and of these only four hundred and thirty-four were liberally educated. In other words, persons totally unfitted for professional life sought the schools in the expectation of gaining an easy admission to the bar, and of avoiding the three years' study and the public examination required by the act of 1871. The effect was disastrous. The courts were filled with youths whose little knowledge, no experience and great conceit became at first a laughing stock, and then a hindrance to the practised ministers of justice. Their arguments were of no more value than their briefs, and could not be so speedily disposed of. The judges endured the infliction until June, 1875, when they passed a unanimous resolution requesting the legislature to repeal the privileges of the schools, and to subject their students to an examination after a three years' course of study. In the discussion that ensued in the New York Bar Association and elsewhere, it was asserted by those interested in maintaining these franchises that the schools make counsellors while offices make attorneys; and that, when the counsellor is made, no special education is necessary for the attorney. This assertion is in direct opposition to the opinion and practice of the English courts, which require that a barrister who wishes to become a solicitor shall qualify himself by three additional years of study. The fundamental fallacy, however, is in assuming that there is a sharp line between the duties of attorneys and those of counsellors. As a

matter of fact there is no such line in this country, nor is there any well-defined line anywhere. Justice Hannen says: "There is no sharp dividing line between barrister and solicitor and their duties merge into one another." Lord Hatherly said that "he should rejoice to see the barrier which now separates the two branches of the profession broken down." There is the same relation between principles and practice as between faith and works; either without the other is of little value. Nor is it true that the attorney is occupied with matters of form, and the counsellor with legal principles. Attorneys in England have always acted as advocates in the inferior courts, and in this country conveyancing is considered as attorney work; in England it was formerly the exclusive business of the barrister, although now it is often done by attorneys. In England the barrister rarely sees his client; the solicitor is the medium between them, and must know not only all the principles applicable to the case with which the barrister is familiar, but also the formal steps by which the action is initiated. These illustrations are sufficient to show that no line can be drawn between the duties of an attorney and those of a counsellor. It follows that schools which only instruct students in the principles of law should not be allowed to put their scholars upon the country as full fledged lawyers, versed in the practice as well as the science of their profession. One of the worst features of the charters of the schools is that which requires the judges of the Supreme Court to certify, and perhaps falsely, to the ability of the graduates—persons whom the judges never knew, never saw, never examined and over whom they never had any control! What could be more unjust either to the court or the people? What more unprincipled than to require judges to pronounce judgment according to the will of the legislature and not according to their conviction of the truth?

The discussions upon these evils developed the fact that the bench, bar, principal universities and public press agreed in condemning the privileges. Chief Justice Noah Davis said: "Three years seems a brief period of study to fit youth for the most important of all the professions. At this day the questions of law are more numerous, more intricate and complicated, affect larger interests, and involve greater results by far than when the law required seven years' study to be an attorney and ten years to be a counsellor. Are the privileges a necessity to the existence of the schools? Then it is

because the schools are furnishing a cheap, easy and *secure* road to the bar, having reference to the *quantity* rather than the quality of lawyers. Such a condition of things is against public policy. A law school that cannot stand upon the bottom of its capacity to instruct young men in the great principles of the law and their application to the affairs of men, but is obliged to fall back upon a monopoly of privilege to inject men into the bar, without authority elsewhere to ask why or how they got there, flourishes at the expense of the well-being of society." President Eliot, of Harvard University, wrote: "Why should a student who has attended a law school receive favors not granted to a student who has read in an office? Is it because his privileges have been greater and his attainments higher? Why then, does he shrink from public examination? Is it that law schools may live? I should reply that a law school whose examinations were not severer than those which may reasonably be prescribed for admission to the bar was not worth preserving. Time actually spent in a law school should count towards admission to the bar in the same way as time spent in an office; but no favor like exemption from public examination should be accepted by a self-respecting school, much less asked for. To my mind such a special provision is degrading to the schools and injurious to the profession." Lawyers are public officers and upon principle no private body should appoint to public office. The fact that the Governor at one time appointed lawyers as he now appoints notaries is no answer. The Governor is a public officer, influenced in such appointments by considerations of a public nature and with no private interests to foster.

The immediate effect of these discussions was the passage by the last legislature of a law recommended by the Committee of the Bar Association, which committed the whole subject of admission to the bar from the schools, as well as from the offices, to the control of the Court of Appeals, who may in their discretion withdraw or modify the concessions to the schools. It cannot be doubted that this high court will take such action as is consistent with the gravity of the evil, the dignity of the profession and the welfare of the state. Harvard University has taken the lead in this matter, and will require a preliminary examination from the class of 1877, and after that year will raise the course to three years. Columbia College will require a preliminary examination from the class of 1877, and there

is some reason to hope that both Columbia and Yale will also raise the term to three years. There can be no doubt that the system of instruction by lectures and moot-courts is the best that has yet been devised, and in framing the new rules the Court of Appeals will perhaps recognize the value of the schools by granting them some concession which will attract students to their halls. But no person should be admitted to the bar who has not acquired some knowledge of the practical application of law in an office. The analogy between the physician and the lawyer is perfect in this respect. A medical school which provided neither hospital nor clinical instruction would be held up to ridicule. Yet it would be no more absurd to allow physicians to treat their patients by the book, without any experience, than to permit lawyers to conduct proceedings in litigated causes without previous practical knowledge. The best system would seem to lie in the middle course, and to require that all applicants should learn the principles of the law in a school, then apply them for at least one year in an office, and finally pass a public examination by impartial examiners appointed by the court. A preliminary examination should also be required of all students, except college-men, before they are permitted to article themselves as clerks, and the very threshold of the bar should be closed to those who have not had a liberal education. In England solicitors are subjected to a preliminary, an intermediate and a final examination, the severity of which is attested by the fact that about one-fourth of those who present themselves are rejected. Three years' study are required of graduates of universities, of barristers, and of persons who for ten years have been clerks to attorneys; four years of persons who have passed certain university examinations, and five years of all others. In Germany no one is permitted to study law who has not graduated from a gymnasium. He must then pass four years in a law university, and after that practice for two years in the courts, as an assistant, before his admission. The judges are there subjected to an examination.

No examination, however, can be either efficient or equal which is conducted by different examiners at every term. A committee of the New York Bar Association lately reported upon this subject:

“At present there may be sixteen public examinations held every year in different parts of the state, and conducted by sixteen different sets of examiners. Of course there can be no uniform standard of proficiency under such a system. The degree of knowl-

edge required of the student varies, not only every few months, but at the same time, in different sections of the State.

“What the standard shall be, is left to the character, knowledge, discretion and opinions of the examiners.

“Nor are these gentlemen always selected on account of any peculiar aptitude for the duty required of them.

“It too often happens that they are chosen from the number of counsellors whom chance or business brings before the General Term at its opening, and without much reference to their fitness

“Sometimes they are very strict, and afford every protection that the community requires against the admission of incompetent persons; at other times they are exceedingly lax, and the examination is a mere form.”

The difficulty might be avoided by establishing a permanent examining board to be appointed for periods of one, two and three years, and so arranged that one should go out of office at the end of each year, and thus always retain a majority of experienced persons. Such boards have been established in Pennsylvania and Connecticut and are found to work well in practice. All examinations should be conducted either in whole or part in writing. This method is the fairest to the students and best calculated either to discover their knowledge or to disclose their want of preparation.

If some such scheme as has been here sketched could be enforced the State would receive at no distant day a learned and an upright bar, the laws would again be respected, and the character of the profession would elevate that of the community. It is not, however, sufficient to provide for the future, it is necessary to guard against the evils now endured, to weed out the profession, and to visit all violation of duty with swift and severe punishment. The lawyer who transgresses the law is far more guilty than the layman. He sins with his eyes open and should receive a full measure of punishment. The sympathy felt for a first offence can rarely be extended to one who has been brought up to hate crime, to discriminate between its shades, to punish its perpetrators, and who assumes to be like “the sun which passes through pollutions and itself remains as pure as before.” It is one of the consequences of the loss of a high standard of public morals that crimes have lost their names as well as their punishment. The advocate who appropriates his client's property, or misapplies funds committed to his care, is now said to be guilty of a breach of trust, and courts have been found willing to view such crimes more leniently than that of the pauper

who steals a loaf for his subsistence. Legislation is needed to make the wilful appropriation or misapplication of property by attorneys, executors, trustees and all persons occupying fiduciary positions, a criminal offense, punishable by imprisonment in the State prison. It is a notorious fact that the American may be cheated with impunity, without making any effort to obtain redress, while his English cousin will enforce the least violation of his rights with the utmost rigor. The ease with which fortunes have been heretofore acquired, in a new country, and the good nature of the American public are alike responsible for this difference, which is as little creditable to the heart as to the head. In the older states the first condition is changing. Fortunes which can only be acquired by years of toil are carefully guarded, and all attacks rigorously punished. Merchants have learned that honesty is not encouraged by easy compromises, or releases and extensions impudently asked and indifferently granted. They have found that the honest suffer when the fraudulent escape, and that the upright tradesman who pays his debts, is always undersold by the rogue, who buys dear on credit, to sell cheap for cash, without any intention of paying, and relying upon the ill-judged leniency of creditors to discharge him when bankrupt, and launch him again on a new career of fraud. The experience of the professional man is the same as that of the merchant, except that the injury he suffers when his guilty brother is permitted to escape involves loss of character as well as of business. This trait of American character has even invaded the bench, and made it treat grave error leniently. It has become a rare and a difficult thing to bring a lawyer to justice. Judges and barristers shrink from the duty of punishing their professional brethren. We have the codes of Justinian but have lost their vigor.

"Of two such lessons, why forget
The nobler and the manlier one."

It would be a painful task to enumerate the cases of breaches of trust, of fraud, of imposition upon, and contempt of court, committed by persons who have not even had the grace to fly the country. Not to go beyond the state of New York, there have been persons practising as lawyers who have never been admitted, and there have been persons holding licenses to practise who have never been examined according to law. There have been persons engaged in the practice of the law whose silk gowns have been torn

off, whose licenses have been revoked, and who could not show themselves in the streets of London without danger of arrest. There are associations organized for the sole purpose of reform which do not rid themselves of unworthy members. The extraordinary spectacle may be daily witnessed of a judge, who only avoided impeachment for high crimes and misdemeanors by resigning from the bench, trying causes in the very court over which he once presided! These things ought not so to be. The people, the profession and the judges are alike to blame in tolerating them. Perhaps the worst feature is that there is no general social ostracism for the perpetrators of such crimes, and men are taken by the hand by those who speak of them with contempt. So long as society has this beam in its own eye it cannot justly complain of motes elsewhere. Undoubtedly the method of proceeding against delinquent lawyers is defective and makes it easy for offenders to escape. Under the present system the time of the court would be largely occupied by such trials, or they would drag along in endless references. It is a subject upon which legislation is needed. Some scheme should be devised by which lawyers may be more summarily tried, and which shall throw upon the judges the positive duty of seeing that their bars are kept clean. Laymen sometimes fear the consequences of making charges against officers supposed to possess power and influence with the courts. It is needless to say that such apprehensions have no foundation, but laymen should be encouraged in all proper cases to prosecute their complaints. Many of the difficulties of this problem have been lately solved by the Incorporated Law Society in London, at whose instance in one year (1874) six solicitors were stricken from the rolls, three cases were referred to masters for report, and four were abandoned in consequence of the flight of the delinquents. In the state of New York it is rare to disbar an attorney; but the difference is due to moral weakness and not to any superiority of our attorneys over their English brethren. The best interest of society requires that the good lawyer should be treated with the highest respect, and the bad one punished with the utmost severity. Thus alone can the bar be purged of its dross and raised to the position it should hold. In a community like that of the city of New York, demoralized and debased by many years of loose notions of professional propriety and by much judicial misbehavior, it is the first step that is difficult. But if it be true that "the best

of prophets of the future is the past," there is every reason for encouragement. It is a noble fact in the history of the Saxon bar that at its lowest periods it has always contained a body of men with courage to face, and wit to encounter, the worst of evils. These times are no exceptions. The purging of the Judiciary and the conquest of the ring are the laurels of this body; and it may be confidently asserted that every section of the American Bar contains men of the highest character, that some of its members have been endowed to so remarkable a degree "with the spirit of wisdom and understanding, the spirit of counsel and of ghostly strength," as to have been the foremost men of their age, and that under a proper system the whole body might be raised to such a position that the degree of counsellor would be everywhere conclusive as to the honor and ability of its possessor.

MR. HUTTON'S ESSAYS.¹

THIS volume is a selection from the essays published in England from time to time by the eminent editor of *The Spectator*, which have had but little circulation on our side of the Atlantic, although some American readers have learnt and appreciated their value. His essay on "The Incarnate and Principles of Evidence" is the only one widely known in this country, as it was reprinted by Dr. S. Osgood, on the occasion of his transition from the Unitarian to the Episcopal Church, with an introduction explaining, in connection with Mr. Hutton's statement of the Trinitarian's case, his own reasons for the step he had taken. Mr. Hutton offers this volume to the American public with a brief preface, in which he says something of his own critical method and something of the mutual relations of the several essays.

Mr. Hutton is no stranger to American readers, although the literary policy of his paper has disguised from all but a few careful students of style, the personality of himself and of the other writers to whom we are indebted for the wisdom which fill its pages. To him

¹ESSAYS IN LITERARY CRITICISM. By Richard Holt Hutton. Pp. xii., 355. 12mo. Philadelphia: J. H. Coates & Co.

and his associate, Mr. Townsend, it is chiefly indebted for the high character it sustains among the weeklies. It is welcome as a valued friend, pleasant in temper, and high in principle, free from the cynicism and the domineering tone which characterize most of its rivals—all the dearer to us because not infallible, because quite capable of becoming angry, capable of making a mistake, but equally capable of confessing the mistake, and utterly incapable of a wilful misrepresentation; and to some of us at least it is not less a friend because it is set for the defence of truths which seem to be slipping out of the intellectual grasp of our literary men, but which are the root principles of all culture and all civilization.

The subjects of these essays are all writers of our own age—Goethe, Hawthorne, Clough, Wordsworth, George Eliot and Matthew Arnold; and, as Mr. Hutton says in his preface, they belong to our age in other senses than merely the chronological. They share in the questioning self-conscious temper which Mr. Carlyle in his earlier essays deploras as the spiritual disease of modern Europe, and in contrast to which he holds up his Abbot Samsons and his Cromwells as the representatives of the periods which possessed a good digestion because they “did not know that they had any constitution.” Mr. Hutton thinks that another point which they have in common will commend them to American readers; they all possess the same simple style which he finds to be characteristic of American literature. In this no doubt he is right, Joaquin Miller and Walt Whitman to the contrary notwithstanding. But in his reason he is very far from the truth. It is not, as he conjectures, because “complete sincerity and simplicity of style is more strictly natural to the citizens of a Republic,” but because American literature is reactionary against the popular drifts and currents of our intellectual activity. There are, Dr. Johnson thought, only two subjects worth talking about—Politics and Religion—and the average American thinks with Dr. Johnson; but when Americans “of culture” meet to exchange views of life across the dinner-table, no two subjects are more carefully excluded than American politics and American religion. English visitors to the Centennial Exhibition say that they were especially struck with this social reticence, witnessing it as they did during the very heat of a great political struggle. It is true that the “scholar in politics” is not unknown among us; but equally true that he appears there not because of his scholarship

but in spite of it—equally true that when he returns to the society of his own guild, he leaves politics behind his back. Our literature, using that term in the severely technical sense which covers all the books Mr. Hutton had in his mind's eye, does not reflect American life and thought, and is no fair exponent of either the strength or the weakness of the nation. And a part of the protest it unceasingly bears against the popular objects of its dislikes, are the colorless sobriety of style it affects and the sympathy it has for writers of the sceptical and cynical school whom Mr. Hutton describes. Were the great bulk of it to be sunk in the ocean to-morrow and never replaced, the next generation would be all the firmer in the large convictions which give social and national life their worth and their steadfastness.

Let no reader here charge us with a purposeless digression; what we have said is prompted by the tone and spirit of the book before us, for Mr. Hutton is in many things the very antithesis of our ordinary "person of culture." He is an Englishman, with no ambition to be anything else—no painful regret that he was not born in some more favored land. He is a Christian, with no disposition to treat that great sum of truths and influences which we call Christianity, and out of which have grown nearly all the things which make us one among the foremost nations, as one out of the many hypotheses of life which an intelligent man may entertain, and not the most plausible of the many. He is a believer in the freedom and responsibility of man, and therefore brings all things to an ethical standard, adjudging the simple issue between right and wrong, between the sanctity of social relations and their profanation, to be the greatest of all issues. But let the reader not be misled here; he is by no means so "preachy" as his present reviewer. It is the atmosphere of his book rather than its teachings, its assumptions even more than its positions, that we speak of.

The opening essay on Goethe will illustrate what we mean. With all our admiration for the author for the *Elective Affinities*, and for Mr. Lewes's very excellent biography of him, our social standards must undergo a complete *bouleversement*, before we learn to respect Johann Wolfgang Goethe as a man. Most of what has been written about him in English, beginning, we are sorry to say, with Mr. Carlyle's essays, has tended to create a feeling that moral rules and Christian beliefs may do very well for very small people, but

that gigantic natures lift their heads to an atmosphere in which both of these are an impertinence. Mr. Hutton feels the greatness of Goethe and discusses its nature as thoroughly as do any of his eulogists. He has learnt much from him, and as an intellectual master, he looks up to him. He has even discerned the greatness of some parts of Goethe's writings—such as that wonderful *Italianische Reise*—which have been neglected and even depreciated by his very worshipers. But Mr. Hutton nowhere sacrifices other things to the worship of Goethe. Connecting the life of the man with his works, he even shows how much of the limitations of the latter—as for instance the failure of all his dramas after *Götz*—grew out of the moral imperfections of the former. And he finds the key to the man's life in his famous words to Lavater: "The desire to raise the pyramid of my existence—the base of which is already laid—as high as possible in the air absorbs every other desire, and scarcely ever quits me."

The second essay, that on Nathaniel Hawthorne, must be of especial interest to us, as an appreciation of the greatest of American prose writers by a critic of insight. It contains enough, we think, to substantiate what we have said of the reactionary character of our literature. And the proof is a'l the clearer because in Hawthorne's case the reaction was unconscious. In his definite opinions Hawthorne was quite in agreement with the New England of his day. His religious belief was orthodox; in politics he was opposed to the abolitionists. But his writings are an escape from life as it went on around him. They belong to fairy land, not to New England. Many of them seem to be reproductions of a past to which memory clings, but no such past ever existed outside of their author's imaginations. The characters are in a sort very real, as real as Shakespeare's. It is the creation of them that constitutes Hawthorne's greatness. But they are all seen in the light of a single idea, and divested of the varied and shifting atmosphere of actual life. Shakespeare lets his real men and women act and speak by broad daylight, while Hawthorne finds moonlight only too bright for his eyes. As Mr. Hutton says, he is in imaginative method at the very antipodes from Defoe, who dwells upon commonplace and external details with evident relish, and discloses the situation to us by their means. Hawthorne was all his life the true son of his ancestor, the witch-judge, having "inherited not a little of the eeriness of the spiritual inquisitor, without any of his cruelty."

The third essay aims to disclose to us the secret of the fascination exerted by that half-American, Arthur Hugh Clough. Everybody who came within his range of acquaintance seems to have carried away an impression of personal and literary power, such as nobody would gather from his works. He has therefore been a puzzle to readers, because of his great reputation among his contemporaries, who still speak with raptures of poems and passages which they read through the haze of personal admiration and affection. Mr. Hutton has gone as far towards solving the puzzle as can any one by mere writing about Clough. But after all, the case remains a crucial test of the powers of literature,—an evidence of the transcendent worth of a noble personality.

The essay on Wordsworth represents the third or judicious stage of Wordsworthian criticism. That "fine lettuce with too many outer leaves," was found by the first generation to be nothing but outer leaves; by the second to be altogether edible and delicious. But in the present stage both sides of the man are very faintly appreciated. His greatness is seen as Robertson and Stuart Mill saw it; his weakness, as Jeffry and the host of petty critics saw it; and the two in their unity as only Samuel and Sarah Coleridge and Hazlitt saw it. He was a man of loftiest imaginative powers, and has discharged the noblest function of the poet in consecrating for us humble life and its surroundings, by disclosing the humanity in children and in the poor. But he caught the trick of simulating imagination, of substituting reflective for inspired insight, of posing in all the forms of verse. The only defect we would notice in Mr. Hutton's essay is that he fails to urge a re-editing of Wordsworth's poems on the basis of the first editions. We need to get past Wordsworth the critic, to get at much that is best in Wordsworth the poet.

The paper on George Eliot justly places her at the very apex of the great mass of modern writers of English novels. She is the synthesis of Charlotte Bronte with Jane Austen,—of the novelist of humanity with the novelist of society. But she is more than this,—more than the synthesis of all the special schools in one. To describe her range of power one must draw on the language which we have spent two centuries on devising for the adequate description of her "countryman" Shakespeare—both are from Warwickshire. We have not space to follow Mr. Hutton's delicate analysis of her

method and style ; but we add a hearty amen to his protest against the delineation of Maggie's "passional affinity" for Stephen in *The Mill on the Floss*. That picture could only have been drawn by a woman whom a false philosophy had perverted from her better judgment and insight. And over against it and all such tamperings with the relation of the natural to the spiritual, we would write Horace Greeley's noble words : "The affections are the flower and the consummation of the will." The indications given in *Daniel Deronda* that the authoress has undergone a change of religious belief are cheering to those who admire her great genius, but hope that the whole impression she will make upon the minds who are privileged to be her contemporaries and to read her works with the surprise of fresh acquisition, will be for good.

The last essay is on "Matthew Arnold's Poetry." It may be regarded as a continuation of that on Wordsworth, for it discusses Arnold as Wordsworth's greatest disciple, in his resemblance and his contrasts to his master. The latter it finds chiefly the purpose of the two poets. The master would bathe us in the strength and the energy of his own spirit ; the disciple would draw us away from the feverish pain of our restless life to images of joy and peace drawn from nature, in utter despair of any solution of the mystery of existence. He embodies in verse, as Hazlitt said of the *Laodamia*, the sweetness, the gravity, the strength, the beauty and the languor of death.

Mr. Hutton's essays seem to us a very valuable addition to our critical literature, and extremely well worth the study of those who wish to "get the bearings" of the great masters of modern literature. He combines in a very unusual degree a delicate literary insight with a robust moral sense ; and his criticism is of that noble constructive sort which deals with the excellency and the greatness of the work under his review, rather than with its blemishes and its short-comings. His readers do not rise from the perusal of one of his papers with an astonished admiration for the critic's own cleverness, and a supreme contempt for the book he is writing about, and for the fools who thought that they discerned in it something that entitled it to a place in literature. And at the same time his criticism is so penetrating, so discriminative, so true, that they almost always feel that exactly the same opinion lay in embryo in their own mind, but not with the clearness necessary to its right expression even in definite thought.

T.

NEW BOOKS.

THE SKELETON IN ARMOR. By Henry Wadsworth Longfellow. With illustrations. 8vo. Boston: James R. Osgood & Co.

We do not have a new poem from Mr. Longfellow for a holiday book this year; but his publishers have taken the well-known favorite, "The Skeleton in Armor," have printed it in black-letter, a stanza to a page, with engraved borders in a pleasant tint, and with some eighteen or twenty full-page wood engravings drawn mostly by Miss Mary A. Hallock, besides a profusion of vignettes and other embellishments. The book is uniform with similar volumes issued by the same publishing house in previous years, but it is an improvement in general style,—with the exception of the cover, perhaps. The illustrations are in Miss Hallock's usual manner, and she seems to have drawn them with considerable care. The vignettes and borders are by L. S. Ipsen, and vary in merit; some of them are excellent. The execution of the engravings and the printing of the whole book leave little to be desired. Altogether it is probably the best of its class this year, and will doubtless be admired on many tables. It is a good idea to use black-letter type for the text.

THE PRINCIPLES AND ACTS OF THE REVOLUTION IN AMERICA. Dedicated to the young men of the United States. By Hezekiah Niles, editor of the *Weekly Register*. Pp. 522. Lex. 8vo. Baltimore, 1822. A new edition. A. S. Barnes & Co., New York.

Mr. Niles was a very excellent and useful man. His *Weekly Register* was such a record of correct events and important documents as we greatly need now; for no one who has ever been under the necessity of learning something about the period it covers has failed to find it far more full and trustworthy in its information than any file of an ordinary newspaper. It fulfilled Cobden's ideal of what a newspaper should be—the maximum of information with the minimum of comment.

In 1822 Mr. Niles made and published the present collection of our Revolutionary literature. After a dozen pages of introduction, the volume is filled with public papers, speeches and private letters, which have been carefully selected out of a mass ten or a hundred times as great. The principle of selection has been "to show the feelings that pervaded in the Revolution," not to narrate its history. The arrangement, therefore, is not chronological. First the several States are passed in review, and the resolutions adopted and speeches made at public meetings are given, besides interesting matter from mere private sources. Then follow chapters devoted to Congress, to Parliament, to Washington, to Franklin, and to the American

Navy, ending with what is perhaps the most interesting chapter of all—a miscellaneous collection from many sources.

A considerable amount of patriotic fervor would be needed for the connective reading of the entire book, although it contains some very amusing pieces, such as the Delaware Quaker's paper, p. 241. And in many parts it serves rather as a record of what was thought in the past, than as an incentive to present resolve or action. We have "seen life" since the Revolution, and have learnt a few things that the fathers never dreamt of. A similar collection of public papers, popular resolutions, notable speeches and letters, covering the period since 1860, would furnish a curious and not uninteresting contrast to that of Mr. Niles. Yet his book is eminently useful and valuable. It enables us to come into close contact with the words and thoughts of a very remarkable age; of a time when public spirit pervaded all classes of American society, when every public interest was paramount with the people, and our "multitudinous *res privatae*" had not yet eclipsed the *res publica*. It shows us indeed that much of the political theorizing of the time rested on a false philosophy, and that doubtful theories of the "rights of nature" were inextricably blended with patriotic purposes and sensible exertions in behalf of the national interests. It also shows what an important part economic interests played at that time, and how much the determination to win industrial independence of England had to do with the undertaking—a struggle for political independence, as well as for the subsequent establishment of a closer union under the present Constitution. And curiously enough in both cases Baltimore seems to have been more outspoken on the subject than any other American city.

THEORY OF SOCIAL ORGANIZATION. By Charles Fourier. With an Introduction by Alfred Brisbane. Sociological Series, No. II. Pp. 72 and 288. New York, C. P. Somerby.

This work raises in our mind the question whether when the Fourierites have reconstructed society by gathering men into phalansteries and making labor attractive, the introductions to books—if books are still printed and edited—will always be printed in separate pamphlets, as in this work, instead of following the title pages which announce them.

Fourier was the oldest and in some sense the greatest of the modern socialists. Approaching the subject from an economic point of view, he resolved all other questions of social urgency into that of the organization and the reward of labor. Like the American school of Nationalist Economists, he was very much alive to the cost of maintaining and enriching such non-producers as the trader and the soldier, and aimed at such a reconstruction of society as would reduce their numbers and their exactness to a minimum.

And although himself a man of reserved and unsocial habits, who often did not exchange a word with persons of his own household for days together, he thought the family too small a group for the proper exercise of man's social instincts. Living at a time and in a country when religion was regarded as a sort of surface varnish, chiefly suited to feminine natures, he had not even Comte's and Saint Simon's insight into its practical importance, to say nothing of Proudhon's.

Fourier himself was dead before his system attracted any sort of attention. It was not until 1837, after the final break-up of the school of St. Simon, that young Victor Considerant aroused the public interest by a brilliant and eloquent exposition and application of his master's ideas. Since that time Fourier's name has never ceased to be before the public, although somewhat less prominently since 1848. Cabet "conveyed" wholesale the Fourierite teachings, carried them in some points to their logical consequences, dressed them in a more fantastic shape, and presented himself as an original. His French "Icarian" colony still exists in the Mississippi Valley. Fourier's doctrines came to America in the prestige of their first popularity. They were welcomed by men who afterwards renounced all sympathy with socialism, such as Greeley and Dana. In Mr. Brisbane, however, they found a literary advocate of the staunchest sort, a champion through good report and evil report. Of the many attempts made to carry these views into practice all, we believe, have failed. Mr. Nordhof found for his book not a single one of the host that used to report progress in the *Universicelum*, and in the Noyes-Macdonald record they figure as things that were.

Fourier has attractions for the secular intellect—for men of hard heads and common sense who break with the existing order of society and desire a reconstruction, rather than for the poetical and sentimental. He reads like a political economist, a blending of dry facts and dry inferences. When he becomes eloquent, it is with the eloquence of indignation, not of hope. He has therefore, of all the socialists, the best prospect of escaping oblivion, as having the least occupied himself with what is local and temporary.

We find nothing attractive in the prospect of a regenerate society which he holds up before us. Life is not worth having on such terms. The phalanstery would be the grave of all that gives it variety, surprise, color. It would be the apotheosis of the commonplace and the millennium of the monotonous. Did Fourier hide anything from us we might have hope. But he has analyzed the passions upon whose strings he means to play, and catalogues the motives by which he means to rule, so coolly and so candidly, that we perceive that this mild, patient, long-headed Frenchman aimed at nothing less than a despotism over the hearts and the thoughts of men.

How the new millennium is to be introduced is the problem

which has tormented all socialists. Are we to wait until then we faith has converted all but a minority, and then have it set up in their despite by the Government as representing the majority? Or are voluntary associations to illustrate the plan and thus bring conviction to the many? If the latter is the true way why have all such attempts at life in a phalanstery failed? Why has no communism that has not based itself on religion and proscribed marriage and the family ever lived long enough to train a second generation? And what does Fourierism propose to do with this last agency, which rends every communistic society to pieces with the irresistible might of the laws of nature themselves?

ORGANIC PHILOSOPHY, OR MAN'S TRUE PLACE IN NATURE. [Vol. I. Epicosmology. Pp. xvi., 399; vol. II. Outlines of Ontology—Eternal Forces, Laws and Principles, pp. viii., 455; vol. III. Outlines of Biology—Body, Soul, Mind and Spirit, pp. viii., 556; vol. IV. Collective Biology and Sociology, pp. viii., 436, xv.] By Hugh Doherty, M. D. London: Trübner & Co.

Dr. Doherty, we think, is on the right track in this attempt to evolve an organic philosophy of the cosmos, for the unity of the different forms of existence in the cosmos is no doubt best interpreted to our minds by the analogies of an organic body. Paul long ago applied that analogy to the Church; Metellus centuries earlier applied it to the state; and the principle of classification evolved by Von Baer, and elaborated by Herbert Spencer, accords it a universal validity. But Dr. Doherty has not advanced the subject in these four volumes as much as might fairly be expected of him. He seems to us to rest too much on mere schematisms, which are but the skeletons of thinking, and often mere artificial skeletons at that. To prove the close, and in a sense organic, independence (1) of the organic and the inorganic world, (2) of the higher and the lower spheres of organic life, (3) of men among each other, and (4) of men and higher spiritual beings up to the very highest—this would have been a great work. But we have here materials only for such a philosophy, and fruitful hints drawn from a consideration of the natural sciences. His twenty years of study have not been wasted, but neither have they produced any result at all commensurate with their extent.

On all the great issues of the day Dr. Doherty is on the side of spiritual and Christian philosophy against scientific materialism. His attitude towards such writers as Tyndall and Spencer is too critical to allow of his using them as much as he might, in furtherance of his own purpose. But his Christianity is not altogether that of the orthodox, for he regards hell as a prison-house for the reformation of spirits.

Dr. Doherty's organic schematisms are based on groups of four,

but he does not seem aware of the coincidence of this with the Bible. Four is there the sacred number which represents the cosmos, the earth and the fullness thereof.

THE ULTIMATE GENERALIZATION. An Effort in the Philosophy of Science. Pp. 56. 8vo. New York. Charles P. Somerby.

"The end of philosophy is the intuition of unity," Bacon says, and as the truths of science converge and are gathered up in more embracing generalizations, some sort of final unity, some "ultimate generalization" seems to be brought nearer to our ken. But all science, and in some sort all metaphysics, pause before the final step. Comte warns men never to attempt it. Herbert Spencer denies its possibility, and leaves all the ultimate basis of things in the region of the unknown. All detect dualisms or polarities throughout nature,—evolution and dissolution, matter and force, unity and plurality, rest and motion; but all have failed to disclose to us the open secret that lies beyond these, but is ceaselessly and equally disclosed to us by both members of every polarity. Our anonymous author sets himself to discover this, and thinks he finds it in the law of contrast or polarity, itself. His philosophy and his method are in general that of Herbert Spencer, but he has read widely.

We cannot go with him and Spencer (page 9) in the assumption that our experience of resistance necessitates the assumption that matter exists. To say as Spencer does that "resistance is unthinkable apart from matter—apart from something extended" is to confound an unverifiable assumption with a verifiable truth. Space is something extended, and if we suppose parts of space (*loci*) to be occupied by force-points without dimensions—as Boscovich and Faraday conceived them—and these to be continually vibrating in attraction and repulsion within the locus, we have an extended world which "fills the bill" of our experience of resistance without demanding matter as the "vehicle of force." And if matter, as Mr. Spencer truly says, "is known to us only through its manifestations of force," and if force is perfectly conceivable to us in connection with space and its parts without lugging in the superfluous conception of material atoms, then a philosophic science must cease to talk of matter.

THE ECHO CLUB AND OTHER LITERARY DIVERSIONS. By Bayard Taylor. 18mo. Pp. 188. Boston. James R. Osgood & Co. 1876.

One takes up this little volume with some reluctance: travesties do not better by age, and the diversions of the Echo Club found their way four years ago into the *Atlantic Monthly*, where they excited much curiosity and attention. Yet as one reads into the book an interest certainly warms, and he finds much more life than he had looked for.

In the first place the conversational form is a very excellent one for a certain kind of literary criticism, and gives the zest of personality to our enjoyment; and then Mr. Taylor's range of taste is so wide, his sympathy so broad and his criticism so thoroughly genial that we are irresistibly drawn into the current of his humor. Anything he may write is at least worth a reading, and although at first it may seem a work of supererogation to have gathered these papers within the two covers of a volume, yet they have a value in criticism beyond the mere amusement to be got from them. A *reductio ad absurdum* sort of argument may be made very effective in literary analysis, and often throws light on the subject in points that a more serious inquiry may fail to illumine.

No one need fear to find a favorite maltreated in Mr. Taylor's pages, the good nature is thorough and the sport honest. We have his word for it that the publication in the magazine did not give "other than a very slight momentary annoyance, and that only in one or two cases" of the poets travestied; certainly more than a momentary annoyance would have been inexcusable. The dialogue has nothing that approaches the pungency and fascination of the *Noctes Ambrosianae*, and the whole structure of the Echo Club nights is slighter, but the book is one to read and to keep. The "other literary diversions" might, however, have been omitted without loss. The volume is in the convenient "Little Classics" style which the publishers have fairly succeeded in making a fashion, although they did not originate it.

TWENTY POEMS. By R. K. Weeks. Pp. 167. 12mo. New York. Henry Holt & Co.

These poems are generally slight in construction, but they are always graceful, and they always mean something. The opening poems of the book remind us of Mr. Steadman's boast that the close study of nature is evinced by American more than by cotemporary English poetry. To Mr. Weeks' poetry seems to be an escape from men and society to commune with nature,—a seeking

A larger space above me,
A larger space around,
A sense of deeper silence
A sense of fuller sound,

than he finds in the daily contact with his fellow men which life demands of him. And even when human loves and hopes are formally the theme, as in "An Old Play," they seem to be used mainly as a thread whereon to string glimpses of nature's beauties. This is equally true of his "Andromeda's Escape," which fills more than one third of the book. As he wisely forewarns his readers, the poem is

not an attempt to reproduce the characteristics of the Greek tragedy ; as even the form is not true to that model, and the matter is "anachronistic." And nothing in the poem is more modern and unhellenic than the predominance of the Christian and romantic feeling for nature in all her phases, and her poet's reading his own moods into nature.

The ballads which close the book—"Gudrun," "Roland's Horn" and "Lexington," are not to our thinking so happy as his other poems. Mr. Weeks has not the swing, the ring and the moodless objectivity of the true ballad writer. "Lexington" is the best because the least of a ballad. It portrays New England on that eventful day when

With open hand she stood
And sowed for all the years,
And watered it with tears,
The seed of quickening food
For both the hemispheres.

Summa, the book entitles Mr. Weeks to a creditable place among our secondary poets.

MEMORIAS de la Comision del Mapa Geolójico de Espana. Descripcion fisica, geolojica, y agrolojica de la Provincia de Cuenca por Daniel de Cortazar, Ingeniero de Minas, e Individuo de la Sociedad geolojica de Francia. Pp. 407. Lex. 8vo. Madrid, 1875.

This handsome, well printed and copiously illustrated volume gives evidence of a scientific activity, which has promise for the future of Spain. That great historic land has too long looked to the new world for wealth, and spent her energies in subduing the forces of nature in America. At home, in and under her own soil, are neglected sources of wealth, which far exceed all that the new world could give her. And when her agriculture is improved and her mines worked for the supply of her own founderies and workshops, the financial burdens which now oppress her will seem a trifle that she can easily bear.

It is especially promising to find among her scientific men sound and hopeful views of economic questions, such as, if generally diffused, must stimulate by hope and effort instead of paralyzing both by those teachings of despair, which in so many parts of Europe pass for wisdom. We quote from the introduction to Señor de Cortazar's chapter on "Cultivation," as confirmed by his professional studies :

"We can distinguish different periods in the progress of the cultivations of a country but we can not easily establish a constant law for it ; for the variety of soils, conditions and situation of every territory forbids this.

“We will however give a rapid history of the cultivation of the earth, endeavoring to discover the law which rules humanity on this subject.

“Having passed the first epochs of society in which the community of labor and of wealth is a settled fact, and in which the nomad life is the only one possible to people given up to hunting, fishing and tending cattle, man establishes himself in a fixed spot; and then the epoch of cultivation begins; but in order that an isolated being might take the first step in this new way of living, where must he establish himself? where must he settle?

“The choice is reduced to the means at his disposal; his instruments are extremely imperfect and of the coarsest kind, and the help which he might expect from his fellows is entirely wanting, since the individuals find themselves at a given moment, distributed over a large space of land and separated from each other by long distances difficult to cross. If on the other hand, we suppose it probable that the first husbandman was a man whom physical weakness prevented from following his companions in their wandering lives, we must consider him very helpless and needy.

“An individual with so few resources could not undertake the cultivation of a soil which required great works of preparation; the fertile valleys and gentle slopes occupied by large trees or thick briers, by impetuous torrents or stagnant pools of water, from which deleterious miasmas spread themselves around, presented to him difficulties too insuperable for them to be of any use in the short time which he could wait for his crops, since the stock of provisions on which he could depend was insignificant.

“In these circumstances, everything not only invited but compelled him to begin his cultivation, on the poor and light soils of high lands, where there were no large trees to cut or uproot, and no drainage to make: and besides this, such grounds were the only ones in which he could make furrows with a stick of wood in order to throw there some seed, and where the work, on account of its facility, could be *individual*, that is, without having to call in the help of man or the strength of animals, not yet trained, or the combinations of mechanics as yet entirely unknown.

“The crop will be small, but even then it will supply the husbandman with more food than he used to obtain, while running, in search of game, over a space one thousand times larger than the part now cultivated; and though, until harvest time comes, the primitive farmer is still compelled, through necessity, to provide for his daily subsistence by hunting and fishing, yet, when the first fruits shall have been gathered, he will have a stock of provisions which will allow him to devote a part of his time to perfecting his instruments of labor, with which in the following year, the field work being better done, his crops will be greater in amount. Thus will a time come also, when with the advantage of association resulting from the in-

crease of his family, and with his instruments constantly improving, he will be able to cultivate the most fertile lands, rooting out the trees and shrubs which might be in his way, and which at first he could not even attack.

“In this manner, and from generation to generation, will the progress of agriculture move from the poorest soils to the richest, from which will necessarily result an increasing facility of production; or in other words, a quantity of food obtained with less work, leaving at the same time a certain quantity of work to be employed in other things, different from those destined to procure for himself and family the necessary food.

“Laying aside, for the present, the efforts which man makes to obtain in all soils greater results every year, by improving his methods of tilling the ground, we will direct our attention to the fact that society, in the first period of its agricultural history, has traveled invariably from the poorest soils to the most productive.

“An observation of such transcendental importance in its consequences had not been remarked by any one, until Mr. Carey, in the year 1848¹, brought it to notice, as presenting itself universally in the history of the human race, and by this result of an attentive observation of *facts*, destroyed, so to speak, the generally prevalent idea, that man, in the origin of society, when he had all kind of soils at his disposal, began by settling at once in the most fertile and productive parts of the land.

“To-day all the world understands that this theory is inadmissible from the impossibility of its execution, as testified by the history of all nations and confirmed by reason. In consequence of this the theories of Ricardo and Malthus have fallen into the most just discredit.

“From the short summary which we have given of the history of cultivation, following the ideas of those North American economists, who, leaving off all speculation, have attended only to what is established by facts, we are able to draw great consequences applicable to the future of any country considered in its agrarian aspect; keeping in sight the past and present conditions in which its cultivation of the ground happened to be.

“The tilling of the land is the foundation of all industries; the germ of the prosperity and wealth of all nations; and yet in Spain it has been struggling for a long time with extraordinary difficulties, being almost always opposed by vexatious regulations from those who ought to give it protection; and most wretched in its workings, through the ignorance of those who follow it as a business.”

¹ *The Past, the Present and the Future.* Philadelphia, 1848.

SOME BOOKS FOR CHILDREN. [*Captain Sam*. By George Cary Eggleston. New York: G. P. Putnam's Sons.—*Boys of Other Countries*. By Bayard Taylor. Same publishers.—*The Boys of '76*. A History of the Battles of the Revolution. By Charles Carleton Coffin. New York: Harper & Bros.—*Young Folks' Centennial Rhymes*. By Will Carleton. Same publishers.—*Snowed Up; or, The Sportsman's Club in the Mountains*. By Harry Castlemon. Philadelphia: Porter & Coates.—*Frank Nelson in the Forecastle; or, The Sportsman's Club among the Whalers*. By Harry Castlemon. Same publishers.—*Roddy's Ideal*. By Helen K. Johnson. New York: G. P. Putnam's Sons.]

Few people can be found who think it worth while to give much consideration to what sort of books their children shall read for their entertainment, or, perhaps better still, what they shall *not* read. In a vague way it is felt that there should be some sort of control, but beyond the tabooing of actual "novels" and works positively vicious, it is not in general felt that duty requires us to go. Yet those of us who stop to think how much deeper, for the most part, are the impressions made on the mind by works of the imagination we read as children than by those we read as men and women, must be convinced that here is a subject it is dangerous to neglect. As there are men who can distinctly trace back a great part of their active love of honor and manliness to the reading of Scott's novels in youth, so there are those who can recognize a permanent influence exerted by imaginative literature at even a more tender age, and many more, doubtless, in whom the influences have been entirely unconscious but still a power for good or for evil. If then we do not avail ourselves of the aid of works of fiction in the moralizing of our children, is it not the least we can do to guard carefully against demoralizing them?

The ill effects of the war are to be seen in boys' books, the admirable works of Capt. Mayne Reid, and the prolific productions of Mr. Jacob Abbott being almost altogether supplanted by the sensational, flashy "Oliver Optic" books and the like. In books for girls there has been a somewhat different turn; and an undoubted improvement upon the old, sentimental, "goody" writers, is to be found in the realistic school of which Miss Alcott and Mrs. Whitney are shining lights. But this school gives already some indications of decline, and we may hope therefore for something soon still better.

Mr. George Cary Eggleston, known to the reading public by previous works in a different line, has of late happily turned his attention to juvenile literature; and with a success that makes it a subject of congratulation on both sides; principally, perhaps, because he gives promise of still better work in the same direction. *Captain*

Sam is a story of the performances of a party of boys in the war of 1812—somewhat improbable, doubtless, but not the worse for that; it is not necessary that works of this class should stick so close to the probabilities as those intended for more mature minds, and this one does not violate them badly. Its tone is gentlemanly, healthy and vigorous; and a boy should come from it with something of the same exhilaration as from a run in the open air. There is not much of the war in it, but a good deal of life in the woods of the South, and an abundance of incident. The interest is well kept up, the moral tone is unexceptionable, and there is incidental information and suggestions that should stir up a bright lad to think and observe for himself. It is to be heartily commended; but the illustrations are not so commendable.

Mr. Bayard Taylor's *Boys of Other Countries* is also a capital book, relating, for a great part, facts of Mr. Taylor's own experience of travel. The boys we are introduced to are of Sweden, Egypt, Iceland, Germany and Russia; so that various boyish manners and customs are told about, all sufficiently different from young American ways, and a comparison being not always to the advantage of the latter. Others besides Mr. Taylor might learn something from Lars of Sweden, the first and perhaps most attractive boy in the book. The tales are told in a straightforward, simple style, and will surely interest the class of readers for whom they are written. The volume contains information, and the pictures are fairly good.

Mr. Coffin is well known by his previous books (*My Days and Nights on the Battle-field, Following the Flag, etc.*) as a graphic and generally accurate writer; and while *The Boys of '76* seems to show some marks of haste, it is decidedly one of the best books of the season for youthful readers. The plan has been to carry four young men, playfellows from the same village, through all of the prominent military events of the Revolution, but the thread of fiction, on which the history is hung, is wisely a very slender one; so slender in fact as to disappear almost entirely in many parts of the book, and in no part does it monopolize more attention than to add to the realism of the narrative. The story of the Revolution has probably never before been told to youths so graphically, nor, perhaps, so correctly; and the book is an admirable supplement to Mr. Higginson's *Young Folks' History*, which in some respects it resembles, but which it exceeds in size, and in detail, of course. Probably youthful readers cannot get elsewhere so clear a conception of the military movements of the Revolution as in Mr. Coffin's pages, and the political questions are in general fairly treated so far as they are touched upon. There may be at times a little patriotic exuberance of coloring, but we do not meet the violent denunciation of the enemy that used to be so common in books of this class; we are indeed falling on better times in this regard. The volume is profusely illustrated, with some 300 cuts, which are largely illustrations, in the better sense of

that word, as well as embellishments, many being views of localities or portraits, which with the very good maps and battle-plans add much to the value of the book. A number of the cuts are recognized as having appeared in *Harper's Magazine*. The volume is produced in pretty style, and it is to be hoped will come as a Christmas gift to very many boys to whom it cannot fail to be welcome and profitable.

Mr. Will Carleton (why not William we are at a loss to know) offers to American youth a small volume of *Young Folks' Centennial Rhymes*, which is hardly so desirable as Mr. Coffin's book. He has taken a number of Revolutionary incidents, more or less known, and dressed them up in verse, more or less felicitous. The book is illustrated, and prettily printed; but its binding in red, white and blue is more gaudy than tasteful.

The writer who calls himself "Harry Castlemon" is of the same class as "Oliver Optic" perhaps, but much superior in sentiment and moral tone. His books have a liveliness and dash that ought to be taking, and while they may have little instructive value they can be commended as otherwise unobjectionable. *Snowed Up* and *Frank Nelson in the Forecastle* are volumes of a series relating to the various adventures—some of which are quite astounding—of a half-dozen boys who are going around the world in charge of older relatives. They are open-air stories and healthy ones, and he is a slow boy who would not be interested. The pictures are spirited.

Roddy's Ideal is of the realistic school and is presumably a story for little girls, but there are probably not very many little girls who could understand the facetiousness upon which the author mostly relies for her effect. It has a "smartness" that one cannot help thinking is rather directed towards the author's young lady friends than towards the book's legitimate readers. How many children could see anything in this:—

"I'm Congregationer," said she. "I don't have general dissemblers, and I think the members of the church ought to be democrats."

"What a very queer idea," said Ellen. "My church doesn't have anything to do with politics."

"Neither does mine. I don't quite understand it, but I know I heard them talk about the church government being democratic."

This is sorry stuff, and the most of the book does not seem to be much better.

BOOKS RECEIVED.

Noblesse Oblige. By the Author of "M'lle Mori," *Leisure Hour Series*. 16mo. cloth, \$1.25. Pp. 394. New York: Henry Holt & Co. [Porter & Coates.

Twenty Poems. By R. K. Weeks. 16mo., cloth. \$1.50. Pp. 171. New York: Henry Holt & Co. [Porter & Coates.

- The Carlyle Anthology. By Edward Barrett. 12mo., cloth. \$2. Pp. 396. New York: Henry Holt & Co. [Porter & Coates.
- The Theory of Sound in its Relation to Music. By Prof. Pietro Blaserna, of the Royal University of Rome. With numerous wood-cuts. *International Scientific Series*. 12mo., cloth. \$1.50. Pp. xii. 187. New York: D. Appleton & Co. [Porter & Coates.
- Hygeia, a City of Health. By Benjamin Ward Richardson, M. D., F. R. S. 16mo. paper. Pp. 47. London and New York: Macmillan & Co.
- The Echo Club, and other Literary Diversions. By Bayard Taylor. 18mo., cloth. \$1.25. Pp. 187. Boston: James R. Osgood & Co. [Claxton, Remsen & Haffelfinger.
- A Study of Hawthorne. By George Parsons Lathrop. 18mo., cloth. \$1.25. Pp. 350. Boston: James R. Osgood & Co. [Claxton, Remsen & Haffelfinger.
- The Poetical Works of James Russell Lowell, *Household Edition*. 12mo., cloth. \$2.00. Pp. 416. Boston: James R. Osgood & Co. [Claxton, Remsen & Haffelfinger.
- The Skeleton in Armor. By Henry W. Longfellow. With illustrations. 8vo. cloth. \$5.00. Boston: James R. Osgood & Co. [Claxton, Remsen & Haffelfinger.
- Roddy's Ideal. By Helen Kendrick Johnson. 12mo., cloth. \$1.25. Pp. 293. New York: G. P. Putnam's Sons. [Claxton, Remsen & Haffelfinger.
- Octavius Brooks Frothingham and the New Faith. 12mo., cloth. 75 cts. Pp. 50. New York: G. P. Putnam's Sons. [Claxton, Remsen & Haffelfinger.
- Map of Turkey and Greece. Drawn by J. Schedler. Printed in colors. Price 75 cents. New York: E. Steiger.
- Viking Tales of the North. The Sagas of Thorstein, Viking's Son, and Fridthjof the Bold. Translated from the Icelandic, by Rasmus B. Anderson, A. M., and Jón Bjarnason, also Tegnér's Fridthjof Saga, translated into English by George Stephens. 12mo., cloth, \$2. Pp. 388. Chicago: S. C. Griggs & Co. [Claxton, Remsen & Haffelfinger.
- Anecdote Biography of Percy Bysshe Shelley. Edited by Richard Henry Stoddard, *Sans Souci Series*. 16mo., cloth, \$1.50. Pp. 312. New York: Scribner, Armstrong & Co. [J. K. Simon.
- The Gold of Chickaree. By Susan and Anna Warner. 12mo., cloth, \$1.75. Pp. 430. New York: G. P. Putnam's Sons. [Porter & Coates.
- Snowed Up; or The Sportsman's Club in the Mountains. By Harry Castlemon. Illustrated. *Frank Nelson Series*. 16mo., cloth, \$1.25. Pp. 301. Philadelphia: Porter & Coates.
- Frank Nelson in the Forecastle; or The Sportman's Club Among the Whalers. By Harry Castlemon. Illustrated. *Frank Nelson Series*. 16mo., cloth. \$1.25. Pp. 332. Philadelphia: Porter & Coates.
- Rare Good Luck; a Fortune in Seven Strokes. By R. E. Francillon. 8 vo., paper. 50 cts. Pp. 116. New York: D. Appleton & Co. [Porter & Coates.
- Young Folks' Centennial Rhymes. By Will Carleton. Illustrated. 12mo., cloth, \$1.50. Pp. 123. New York: Harper & Bros. [J. B. Lippincott & Co.
- The Boys of '76. A History of the Battles of the Revolution. By Charles Carleton Coffin. Illustrated. Square 8vo., cloth, \$3.00. Pp., 398. New York: Harper & Bros. [J. B. Lippincott & Co.
- A Long Time Ago. By Meta Orred. 8vo., paper, 50 cts. Pp. 106. New York: Harper & Bros. [J. B. Lippincott & Co.
- The Arundel Motto. By Mary Cecil Hay. 8vo., paper, 75 cents. Pp. 168. New York: Harper & Bros. [J. B. Lippincott & Co.
- The Life of John Locke. By H. R. Fox Bourne. 2 vols. 8vo., cloth, \$5.00. Pp. 504 and 576. New York: Harper & Bros. [J. B. Lippincott & Co.