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THE

LONDON QUARTERLY REVIEW.

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Art. I.—LOUIS AGASSIZ.

Louis Agassiz: his Life and Correspondence. Edited by Elizabeth Cary Agassiz. In two volumes. London: Macmillan & Co. 1885.

LATE in the year 1827 there came a student to the University of Munich—a Swiss pastor's son, who had just completed his twentieth year. He was soon noticeable, not only for great powers of industry and for a friendly, helpful, and cheerful disposition, but for a curious ease and calm in all his doings, unusual at so early an age. He formed at Munich an affectionate intimacy with a young artist named Dinkel, who took good heed of these characteristics in his friend, and who has recorded for us certain significant words that sometimes fell from him. The two comrades often watched together other students, young fellows more eager for amusement than for work, setting off on "empty pleasure-trips," which had no other end but pleasure. "There they go with the other fellows," the young Swiss would say; "their motto is, 'Ich gehe mit den andern.' I will go my own way, Mr. Dinkel—and not alone: I will be a leader of others."

It was Jean Louis Rodolphe Agassiz who was wont to say these proud words, which his career fully justified. He did not "go with the others;" both as man and as *savant* he

showed himself eminently capable of taking his own way and keeping it. With full consciousness and purpose he chose his path in life—a path of strenuous effort and self-denial, lit by the guiding-star of a lofty aim. "I wish it may be said of Louis Agassiz," he wrote to his parents when he stood at the dividing of the ways of life, "that he was the first naturalist of his time, a good citizen and a good son, beloved of those who knew him. I feel within myself the strength of a whole generation to work toward this end, and I will reach it if the means are not wanting." It cannot be said that he fell below these aspirations on any point. Faithful and tender, he fulfilled the duties of life in no grudging spirit, and attracted strong affection from very many; while he kept eye and ear ever open and vigilant to seize and follow up the delicate clues, unmarked by duller and less wakeful spirits, which led to the secret dwelling-places of great unsuspected truths. These he made known to other men, leading them into fuller knowledge than they had dreamed of. He was rather a master than a disciple.

Louis Agassiz was happy in his origin and early surroundings. His father, a simple Swiss pastor, had a peculiar faculty for instruction, by which his son benefited; his mother seems always to have been in special sympathy with her gifted child, discerning the strong intellectual bias under his childish love for Nature, and never thwarting him with small or sordid anxieties. To the last hour of her life—which ended only six years before his own—she remained, not only his tenderest friend, but the one who most perfectly understood him. Both parents were intelligent, refined, and judicious. There is a quite idyllic grace about the picture given us of the boy's natal home in the parsonage at Motier, on the Lake of Morat; and we perceive they were happy children who studied Nature in its vineyard and orchard, with the grand outlook over the Bernese Alps, and who picked up skill in small handicrafts from the travelling workmen who went their serviceable rounds from village to village. Louis found this early sportful work very serviceable afterwards; it made his fingers apter for delicate scientific manipulations. Hardly less delightful was the home of the good physician, M. Mayor, the father of

Mme. Agassiz, at Cudrefin on the Lake of Neuchâtel, where Louis and his brother Auguste often spent their holidays. Neither house was the abode of wealth; but wealth was hardly missed in the sweet half-pastoral existence with which their inmates managed to blend much intellectual activity; their simple festivals had an unbought charm of picturesqueness not known in the haunts of luxury.

Louis, with his brother, spent five happy and profitable years at the College of Bienne, studying natural history eagerly on his own account, but profiting much also by the regular instruction of the school. It had been designed that on leaving Bienne he should enter commerce, under his maternal uncle, François Mayor. But the lad pleaded for additional years of study, and his parents, acceding easily to his prayer and to the recommendations of his instructors, sent him at the age of fifteen to the College of Lausanne, which he only left to pursue his studies further at Zurich, then at Heidelberg, and then at Munich; Dr. Mathias Mayor, his uncle, and a physician of some note, having recommended the medical profession as best suited to Louis' tastes and ability. M. Agassiz was now pastor of Orbe, which may have been a financial improvement on Motier; but the family purse was a slender one, and Louis' delight in his congenial life was troubled by the knowledge that he lived on the privations of his best friends. They, however, bore the necessary straitnesses with a sweet cheerfulness, and he too looked forward to a day when he should recompense them.

He was now separated from Auguste, his dear fraternal companion. But absence did not impair their attachment; and Louis, whose nature was eminently social, soon made many useful friends in his student life. Chief among these was Alexander Braun, whose passion for botany equalled Agassiz's devotion to zoology; and the two became keenly interested in each other's pursuits, with the result that in after years Braun, Director of the Botanical Gardens in Berlin, knew much more of zoology than did other botanists, while Agassiz, the great naturalist and geologist, had also a wide and deep acquaintance with botany. There is great beauty in the spectacle of their young candid friendship, forming a centre of attraction to a

circle of like-minded students, whose best joys lay in intelligent effort, each doing his utmost to further the attainment of the others. It is a spectacle constantly repeated in the life of the sincere, enthusiastic Agassiz, who had a passion for enlarging the knowledge of his fellows, and who thus appears a true citizen of the wide, free, and tolerant commonwealth of scientific workers, in which the kingliest leader is but *primus inter pares*, and in which there is perhaps less jealousy and grudging, and more frank, loyal, and generous helpfulness, than in any other brotherhood of men bound together only by common interests and common ambitions.

It was the kindly urgency of Braun which led Agassiz to Munich, where the newly opened university offered extraordinary advantages to the student of the natural sciences. The collections open to the public were very rich; the Professors were men of European fame, in the full current of modern intellectual life. One of them, M. Martius, was not long returned from the scientific exploration of Brazil, and gave to Agassiz the rare privilege of studying his magnificent private collection. Louis found his horizon expanding, his views widening and deepening daily, while he studied, experimented, and collected. The room that he occupied with Braun became known as the "Little Academy," for here he and his friends lectured and worked out of hours, with not less industry than they showed in pursuing the university course. At Munich, therefore, his resolution to devote himself to natural science took final shape.

He startled the home circle with hints of "a work of distinction" that he might produce, of a Professorship of Natural History that he might perhaps gain; and he had to reassure his parents as to his resolution to pursue his medical studies. In fact, he was actually engaged on the work of which he had vaguely spoken, M. Martius having invited him to furnish the descriptions of fishes needful to complete the great work on the Brazilian fauna begun by the deceased colleague of Martius, M. Spix. Agassiz, whose *forte* was ichthyology, had accepted joyously; he hoped at once to establish a reputation by being associated with this work, and dreamed of surprising his father with a splendid pre-

sentation copy of the finished book. The surprise failed through the innocent indiscretion of a friend; but all the other hopes of the young naturalist were realized. His natural history studies were now approved and sanctioned; he was soon able to send the opening volume of his work to charm his father's eyes; and when he presented himself at Orbe for the summer vacation of 1829, he came in all the dignity of Doctor of Philosophy, having taken that degree at the instance of M. Martius, but without prejudice to his design of taking out his diploma as Doctor of Medicine; a design carried out the following year.

It is difficult to say of a nature so grandly self-determining as that of Agassiz, that but for his employment on the great unfinished work of Spix he might never have attained his proud scientific position; but questionless the enterprise he undertook so gallantly, careless that it could bring him only fame and no other profit, was serviceable to him exactly as he hoped; and the wide recognition it ensured for his powers justified to his anxious parents the adventurous course into which he launched. He had dedicated the work to Cuvier, as to a revered master and guide; the dedication was acknowledged by the great naturalist in such glowing terms as must have seemed like another more precious diploma to Dr. Agassiz.

The young adventurer had long cherished and had mentioned to Cuvier the plan of a work on the fresh-water fishes of Europe; he and his artist friend Dinkel were already working for it. While studying for his medical diploma, the idea of another great work rose before him and soon enthralled him completely. The Director of the Museum at Munich put into his hands "the finest collection of fossil fishes in Europe," and the conception of his great monumental book, the *Poissons Fossiles*, flashed on him, and attracted him irresistibly. Already, at a scientific meeting in Heidelberg, he had been invited to undertake this much-needed work; *then* it was out of his power, *now* it was not. "I should be a fool to let a chance escape me which will certainly not present itself a second time so favourably," he wrote to his parents; and he tried with conscientious care to present the enterprise of publishing two important books, on living and on fossil fish, in the light of a

profitable employment of capital. Perhaps the parents both smiled and sighed over his half-pathetic representations, knowing that where science was concerned their son was not likely to practise a narrow economy or to look for money profit; though his personal habits were of the severest simplicity, and his superb indifference to the vulgar baits and allurements that often ensnare the young, guarded him well against all blameable money expenditure.

But they showed a wise and rare forbearance; they put no veto on his ambitious projects; only their liveliest approval was reserved for his successful study of the profession of medicine for which they had designed him.

In 1830 the university life of Agassiz came to an end. He took his medical degree with brilliant success; he visited Vienna, and there tasted for the first time the pleasures of Fame, sweet enough to the young man of twenty-three; but though they delighted they did not intoxicate him who saw far greater achievements awaiting him. The air of Vienna, moreover, was not the air of freedom, and our Swiss could not breathe it without a certain *malaise*. It seems to have been with but little regret that he left the great city, to embrace the life of a working physician in his father's home, which was now at Concise, on the Lake of Neuchâtel. He had made arrangements with M. Cotta, of Stuttgart, for the publication of his two projected works, and with Dinkel at his side as artistic helper, he pursued his ichthyological studies during most of the year 1831 at Concise, practising medicine as he found opportunity. It was a charming rustic home which he now inhabited, but delightful as it was, and dear as were its inmates, the naturalist soon found it essential to his success to repair to Paris; both his scientific and medical studies called for this step, which was rendered possible to him by the helpful generosity of one or two friends. For at this time Louis Agassiz was very poor, and only his invincible resolution sustained him in his vast enterprises.

That resolution was severely tried in the months he spent at Paris. They offer the gloomiest period in an existence that elsewhere seems bathed in a mild unclouded sunshine. He found in the great centre of scientific life all the facilities for

his work that he had expected; he met courtesy and attention everywhere; Cuvier and Humboldt treated him as an equal, and did all in their power to promote his researches. But nearer and nearer as the busy days rolled on—his average working day was fifteen hours—nearer and nearer, darker and darker, came the grim shadow of Penury, and at last it fell across his path, and seemed like a solid barrier cutting him off from the bright prospect beyond. He saw himself on the point of being compelled to renounce the priceless opportunities he enjoyed in Paris, as well as the important aid of Dinkel. His publisher, on whose advances of money he chiefly depended, remained strangely silent to his applications, backed though they were by Humboldt, who had found out something of Agassiz's difficulties. He was still struggling on, half despairing, when one day in March there came to him a sympathetic letter from Humboldt, enclosing a credit of a thousand francs; the elder *savant* could not see his young fellow-worker thwarted in his vast plans, and in the gracefullest way pressed the advance upon him. The relief was immeasurable; Agassiz knew not how to express his rapture of gratitude, and induced his mother to come to his aid with her womanly eloquence. What she wrote we know not, but the answer her letter won from Humboldt must have been delicious food to her maternal pride.

Agassiz himself seems to have regarded Humboldt thereafter with something of the love of a son, as well as with the reverence of a disciple; and the older man evidently took a half-paternal delight thenceforth in Agassiz and his work. It is to the dark Parisian days that belongs a curious dream-story told by Agassiz in his *Poissons Fossiles*. For two weeks he had been vainly striving to decipher the somewhat obscure impression of a fossil fish on its stone slab. In the visions of the night the fish appeared to him, twice and thrice, every feature distinct and clear; on the first two occasions the apparition was totally lost to his waking mind; but the third time, having laid paper and pencil ready at his bedside, he traced a rapid outline of the shape that he saw in sleep as soon as he awoke, though still half dreaming and in perfect darkness. In the morning the sketch looked too impossible; but he took it with him to the Jardin des Plantes, and, using

it as a guide, succeeded in chiselling away the stone under which portions of the fish remained hidden. Laid bare, it answered point for point to his dream and to his drawing; now he could classify it easily. He was wont to cite this incident as illustrating aptly the acknowledged fact, that when the body is at rest the tired brain will do the work it refused before; we, too, may use it as a proof how completely this naturalist was absorbed by his work, how it possessed him soul and body. In that absorption lies much of the secret of his success.

Brilliant offers were made to him when he was ready to quit Paris; in particular, he was invited to complete the Cuvierian Fishes, left imperfect through the too sudden death of the great French naturalist. He accepted, however, only such portions of that task as were connected with his own special studies; and he turned from other flattering openings to accept a newly erected Professorship of Natural History at Neuchâtel, annexed to which was the slender salary of eighty louis a year. As a patriot and as a man of science this position pleased him best; Humboldt, too, had recommended him for it, and heartily approved his decision. In the autumn of 1832 he entered on his new duties, to which he brought a skill and an enthusiasm that made him wonderfully successful, and which he declined to relinquish for any other sphere as long as he dwelt in Europe.

"Teaching was a passion with him. . . . . He was intellectually, as well as socially, a democrat in the best sense. He delighted to scatter broadcast the highest results of thought and research, and to adapt them even to the youngest and most uninformed minds. In his later American travels he would talk of glacial phenomena to the driver of a country stage-coach among the mountains, or to some workmen splitting rock at the road-side; . . . . he would take the common fisherman into his scientific confidence, telling him the intimate secrets of fish-structure or fish-embryology, till the man in his turn grew enthusiastic, and began to pour out information from the stores of his rough and untaught habits of observation. · Agassiz's general faith in the susceptibility of the popular intelligence, however untrained, to the highest truths of Nature, was contagious, and he created or developed that in which he believed."

At Neuchâtel he remained from 1832 to 1846—years full of ever-expanding activity and ever-widening fame. The town

under his influence became a centre of scientific work, and its museum, built up by his efforts and those of his able co-worker, M. Coulon, became known as one of the best local museums in Europe. Agassiz did not limit himself to his stated classes at the Gymnasium; he lectured out of hours to friends and neighbours; and in later years continued these attractive informal courses for the benefit of his own children and those of others, giving his geological, botanical, zoological instruction preferably in the open air in the course of country excursions—delightful hours these were for the pupils. Agassiz had found it possible to marry in 1833, and thus to fulfil one of his mother's dearest wishes. His bride was Cecile Braun, the sister of his friend Alexander. Her rare artistic talent had long been serviceable to her brother, and it did not prove less so to her husband; some of the best drawings in his two great works on Ichthyology are from her hand. Their wedded home was of the simplest, for their means were narrow; but only the wife's delicate health seems to have really clouded their happiness. Cecile died not very long after her husband's removal to America, leaving several children, who ultimately joined their father in his Transatlantic home. The death of the elder Agassiz, a loss severely felt by his son, preceded that of Cecile by several years.

The first number of the *Poissons Fossiles* appeared in 1833, and instantly drew the attention of men of science in Europe and beyond it. From the *savants* of France and England, of Germany and America, as well as from those of Switzerland, came congratulations, offers of help, gifts of valuable fossils and drawings. The Geological Society of London conferred on the author the Wollaston Prize, in value thirty guineas—a seasonable gift to Agassiz, for the returns from his work came in slowly, and he was feeling perplexity as to how to meet the cost of issuing his second number. The great English naturalists sent pressing invitations to England, where he might profit by their rich fossil collections. He yielded gladly to their urgency, and in 1834 made his first visit to our shores. Lyell and Murchison, Buckland and Sedgwick, Sir Philip Egerton, and the Earl of Enniskillen, vied with each other in welcoming him and in furthering his work. Half bewildered

among the vast wealth of material he was made to inspect, he was put at his ease by being allowed to choose, from perhaps sixty collections, two thousand specimens most needful for his work; these being sent up to London were accommodated at Somerset House through the agency of the Geological Society, and the faithful Dinkel was at once set at work on making drawings from them, an operation which employed him some years. On Agassiz's second visit in 1835 he received the same admiring sympathy, the same liberal help. He was not ungrateful to the generous men who were so eager to serve him; he became knit to them in bonds of life-long friendship. From France itself he had not obtained half the encouragement that England lavished on him.

It was no ordinary work that had awakened this enthusiasm; indeed, its magisterial grandeur is surprising when we think that a man of twenty-three had conceived its plan, that a man of twenty-six was now developing it. On the great principles which he laid down first in the *Poissons Fossiles* all his subsequent zoological effort was based. The faculty of seeing beforehand in large prophetic outline the full scope of the work, which he afterwards wrought out faithfully in all its complete detail, was always a dominant characteristic of his mind, at once far-seeing and patient.

"One single idea," he wrote of the class of organized beings that first expressed the vertebrate plan—the fishes—"one single idea has presided over the development of the whole class; all the deviations lead back to a primary plan; even if the thread seem broken in the present creation, one can reunite it on reaching the domain of fossil ichthyology." Guided by that leading idea, he had boldly remodelled the entire classification of the fishes, living and fossil, separating in particular as a distinct order all the Ganoids. He recognized—and by patient demonstration compelled others to recognize—the existence, in the strange reptilian and bird-like combinations of the earlier geological fishes, of what he termed "prophetic" types—"early types, embracing in one large outline features afterwards individualized in special groups, and never again reunited." He discovered and announced also, first of all naturalists, the analogy existing between "the

embryological phases of the higher present fishes, and the gradual introduction of the whole type on earth; the series in *growth* and the series in *time* revealing a certain mutual correspondence." His later researches did but fix him in the opinions he had expressed in the *Poissons Fossiles* as to the development of the living organisms of our planet.

"One may consider it as henceforth proved," he wrote in 1843, when discussing the recent discoveries connected with the fossil fish of the Old Red Sandstone, "that the embryo of the fish during its development, the class of fishes as it at present exists in its numerous families, and the type of fish in its planetary history, exhibit analogous phases, through which one may follow the same creative thought like a guiding thread in the study of the connection between organized beings."

The words "creative thought" in this passage strike the key-note of Agassiz's scientific faith. He believed with a rooted belief impossible to shake in a majestic intelligence, vast as the illimitable universe, ruling over all the varied forms of life in the universe, originating and controlling; he believed passionately in the Divine Creator.

"No one saw more clearly than Agassiz the relation which he first pointed out, between the succession of animals of the same type in time and the phases of their embryonic growth to-day, and he often said in his lectures, 'the history of the individual is the history of the type.' But the coincidence between the geological succession, the embryonic development, the zoological gradation, and the geographical distribution of animals in the past and present, rested, according to his belief, upon an intellectual coherence, and not upon a material connection. So, also, the variability, as well as the constancy, of organized beings, at once so plastic and so inflexible, seemed to him controlled by something more than the mechanism of self-adjusting forces."

"I find it impossible," he wrote in 1845, to Professor Sedgwick, who was quite in sympathy with him, "to attribute the biological phenomena which have been, and still are, going on upon the surface of the globe, to the simple action of physical forces. I believe they are due, in their entirety, as well as individually, to the direct intervention of a creative power, acting freely and in an autonomic way."

Agassiz never saw reason to abandon this philosophy, which made him find in the total history of the animal kingdom the working out of a definite plan—the thought of God fulfilling itself in the predetermined order by the operation of the omni-

potent will of God. He recognized the law of evolution as a true law, "controlling development, and keeping types within appointed cycles of growth;" but declined to assign to it a loftier position, much to the astonished disappointment of some who desired to appropriate the results of his researches in support of their favourite doctrine. His views on this and cognate points are—as his biographer acknowledges—no longer in vogue, at present. But those who are least disposed to endorse them do not deny that they were held with serious conviction, and based on patient, careful investigation of the evidence. He would have deemed it a sin to distort or suppress natural facts in support of the best-beloved theory. It is in his last-written scientific paper that we find these memorable words: "A physical fact is as sacred as a moral principle. Our own nature demands from us this double allegiance." Here is the secret of his whole faithful and laborious life. Physical fact and moral principle were to him alike the expression of the mind of God. As such he reverenced them; and he could think no toil ill-bestowed which tended to make the thought embodied in the fact manifest to his fellows.

The generalizations which Agassiz first announced in the *Poissons Fossiles* have not lost their value even to those who do not accept his interpretations of them.

"They already form," says his fellow-worker, Arnold Guyot, "a code of general laws which has become a foundation for the geological history of the life-system, and which the subsequent investigations of science have only modified and extended, not destroyed. . . . . The discovery of these great truths is truly his work; he derived them immediately from Nature by his own observations."

Thus his later zoological studies were directed only to the giving by wider research a yet more solid basis to the grand laws he had seen evidently revealed in Nature. "Let us not be astonished that he should have remained faithful to these views to the end of his life. It is because he had *seen* that he *believed*, and such a faith is not easily shaken by new hypotheses." So ends the testimony of Guyot.

The *Poissons Fossiles* were not completed until 1843. While this work was still in progress the attention of Agassiz was drawn to a new theory advanced by Charpentier as to the glacial phenomena of movement and transportation in the Alpine valleys. Charpentier attributed to glacial action the distribution of erratic boulders scattered over the plain of Switzerland and on the Jura slopes. Agassiz, at first hostile to this hypothesis, became in 1837 a convert to it, on careful investigation of the facts supporting it; and at the next meeting of the Helvetic Association over which he presided, he astonished the members by an address in which he assigned a cosmic significance to the glacial phenomena, and announced, as his conclusions—

"that a great ice-period, due to a temporary oscillation of the temperature of the globe, had covered the surface of the earth with a sheet of ice, extending at least from the North Pole to Central Europe and Asia .... Death had then enveloped all Nature in a shroud, and the cold, having reached its highest degree, gave to this mass of ice, at the maximum of tension, the greatest possible hardness .... The distribution of erratic boulders was one of the accidents accompanying the vast change occasioned by the fall of the temperature of our globe before the commencement of our epoch."

This new daring theory met at first with the most vigorous opposition. Humboldt disliked it, and at the utmost preserved a decent neutrality towards it; but slowly, one by one, other geologists were won to it. Dr. Buckland first, then Lyell, Murchison, Darwin, gave in their adhesion. Agassiz, with a band of ardent fellow-workers, consecrated to the new theory ten summers of research on the Alpine glaciers, and set forth the results obtained in two important works—the *Etudes sur les Glaciers* and the *Système Glaciaire*. He afterwards followed up these investigations with others prosecuted on the grand area of the American Continent, and found no reason to withdraw from the position he had at first assumed; on the contrary, he returned from his last voyage of exploration in South America, in 1872, "convinced that, as a sheet of ice has covered the northern portion of the globe, so a sheet of ice has covered also the southern portion, advancing, in both instances, far toward the equatorial region."

It is noticeable that as Agassiz's zoological theory was foreshadowed in its totality in the Preface to the *Poissons Fossiles*, so his opening address to the Helvetic Society unfolds the glacial period "much as he saw it at the close of his life after he had studied the phenomena on three continents." Here again is that large and rapid apprehension of the total significance of phenomena which stamps the unmistakable character of genius on this man of science and his work. It were a pleasant task to follow him and his fellow-workers through their daring researches on perilous Alpine heights—a toil renewed during several successive summers; but we must be content with indicating the result of their efforts, as summarized by Arnold Guyot who shared in them.

"The position of eighteen of the most prominent rocks on the Aar glacier was determined by careful triangulation by a skilful engineer, and measured year after year to establish the rate of motion of every part. The differences in the rate of motion in the upper and lower part of the glacier, as well as in different seasons of the year, was ascertained; the amount of the annual melting was computed, and all the phenomena connected with it studied. All the surrounding peaks—the Jungfrau, the Schreckhorn, the Finsteraarhorn, most of them until then reputed unscalable—were ascended, and the limit of glacial action discovered; in short all the physical laws of the glacier were brought to light."

"Do you think any position would be open to me in the United States where I might earn enough to enable me to continue the publication of my unhappy books?" wrote Agassiz in 1843 to Charles Bonaparte, Prince of Canino, who had been urging that the Professor should make a journey of scientific exploration with him in America. The great naturalist was becoming crushed under his immense labours, as Humboldt had foretold. His professorial duties represented hardly a tithe of his work, and though the King of Prussia by a gift of £200 had facilitated his glacier research, he had other undertakings on foot that absorbed money promptly and made small return of profit. Ill-satisfied with the plan of having his illustrations produced in distant Munich, he had set up a lithographic establishment of his own in Neuchâtel, which did the work exquisitely, but cost him much, and required constant supervision; he was still

producing his *Fossil* and *Fresh-water Fishes*, his investigations on Echinoderms and Mollusks, and also two important, but dry and therefore little popular, serial publications, the *Nomenclator Zoologicus*, and *Bibliographia Zoologiæ et Geologiæ*. America invited him more and more; it would be a magnificent field for exploration, it might enable him to redeem his financial position without sacrifice of his beloved works. A gift of 15,000 francs from the King of Prussia, granted through the representations of Humboldt, opened the way for Agassiz to realize his hope. He resolved not to depart till he had completed his works and arranged for the welfare of the institution with which he was connected in Neuchâtel; but by prodigious efforts he was able to sail for the United States in September, 1846. "You treat this journey as if it was for life," Humboldt had remonstrated, seeing how earnestly Agassiz was "setting his house in order," in preparation for it. The journey was for life, little as either friend dreamed it. Agassiz came once to Europe for a few weeks, in 1859; but his home was thenceforth in the Western World.

Lyell, whom he had consulted, had encouraged him to think that he would find success in the United States as a public lecturer, so he had entered into arrangements for beginning his American tour with a course of lectures before the Lowell Institute in Boston. His success was so great as to justify the giving of a second course on Glaciers. The simplicity of his style, almost devoid of technicalities, his frank enthusiasm, his skill in illustrative design, were exactly suited to an audience formed on purely democratic principles,; even his foreign accent and faulty English had their charm. On his side, too, the lecturer was strongly attracted. It was now that he first came into contact with the general mass of the people—a people, too, already intelligent, and eager for further instruction.

"The strength of America," he said, "lies in the prodigious number of individuals who think and work at the same time. I should try in vain to give you an idea of this great nation, passing from childhood to maturity with the faults of spoiled children, and yet with the nobility of character and the enthusiasm of youth."

Agassiz soon felt the desire to aid in the scientific education of this splendid adolescent, to teach it to think and investigate for itself, to break the fetters which seemed to restrain it of a too anxious deference to European and especially to English opinion.

Unexpected events rendered it possible for him to promote that emancipation. The wild year 1848 broke the ties which bound the Canton of Neuchâtel to the Prussian Monarchy, and consequently the Neuchâtelois Agassiz found himself honourably set free from the service of the Prussian king. At the same time the chair of Natural History in the Lawrence Scientific School was offered to him by the founder of that institution, which was directly connected with Harvard University. A guaranteed salary of 1,500 dollars was annexed to this Professorship, and its holder was allowed entire liberty as to lectures elsewhere. The seasonable offer was accepted, and Agassiz took up his abode at Cambridge, Massachusetts, where he found himself surrounded by perhaps the most brilliant circle America has ever known, including the best scholarship and authorship of Boston, as well as of Cambridge. If Longfellow and Lowell dwelt in the latter town, Prescott, Motley, and Holmes belonged to the former; the influence of Emerson was potent in both places; and Harvard could boast names of high scientific standing among its professors. Agassiz with his beautiful winning nature and his wide intelligence quickly became a cherished member of this brotherhood, as some exquisite verses, known to the lovers of Longfellow's charming Muse, evidenced long since to unscientific English readers. The ties that bound him to his new position were riveted by his marriage in 1850 to an American lady, Elizabeth Cabot Cary, of Boston, in whom he found a fitting helpmeet. The high quality of her mind is evident in the two volumes now under our consideration, which she has consecrated to his memory, and which, in spite of her modest self-suppression, show inevitably that this second marriage was of invaluable benefit to him. We are allowed some transient glimpses of the delightful home she created for him and his motherless children, and we find that by setting on foot a high-class school for girls, which was

continued successfully during eight years, she freed him from the money difficulties in which the production of his immortal works had long involved him. She is, however, careful to show that his share was large in the success of her scheme; it was he, she tells us, who traced the grand plan of education which gave the school its exceptional character, and he was active also in carrying it out.

America proved a magnificent patroness to her adopted son. In fact, the story of Agassiz's later years shows us the New World under a noble and hopeful aspect, agreeably surprising to minds habituated to regard the Great West merely as the paradise of money-getting. It is impossible to reproduce the charming picture, but we may touch on some of its striking points. First, the naturalist found a wider public, and one less frugally minded as to its outlay on scientific literature than that he had formerly addressed. He was surprised and delighted by the reception accorded to his last great work, *Contributions to the Natural History of the United States.* He had calculated that perhaps 500 copies of this expensive book might be subscribed for, but 1,700 subscribers at once came forward, and even then the list was not closed. Then the maritime excursions, which immeasurably widened his knowledge, were made without cost to himself, through American liberality.

"From the beginning to the end of his American life the hospitalities of the United States Coast Survey were open to Agassiz. As a guest on board her vessels, he studied the reefs of Florida and the Bahama Banks, as well as the formations of the New England shores. From the deck of the coast survey steamer *Bibb* his first dredging experiments were undertaken; and his last long voyage round the continent, from Boston to San Francisco, was made on board the *Hassler*, a coast survey vessel fitted out for the Pacific shore."

A private friend, Mr. Nathaniel Thayer, guaranteed all the expenses of his great scientific journey to Brazil in 1865; the Emperor of that country treated him with grand liberality; the Pacific Mail Steamship Company gave him and his party free passage to Rio; and the naval authorities of the United States required all their officers on the South American coast to offer him every facility for his work. Nor were the friends

who stood nearest to him less ready in delicate and generous assistance. He repaid all these kindnesses with a passionate gratitude. The flattering offers of high scientific positions in Europe which more than once reached him—even that most tempting offer of the vacant Chair of Paleontology in the Jardin des Plantes—could not detach him from his post and his work in America. France bestowed on him the Order of the Legion of Honour and the Prix Cuvier, and for these welcome honours he was grateful. But to the Great Republic he gave the most convincing proof of attachment; for her he, who, after many years' exile, was still Swiss in heart, was willing to give up his nationality. In the midst of the earth-shaking convulsion of the American Civil War he had himself naturalized as an American citizen, to testify his unabated confidence in the great destinies of the Union.

The "passionate dream of his American life" was the formation of a grand museum of Comparative Zoology, which should free all future American naturalists from the immense difficulties with which he himself in youth had had to struggle. With infinite unwearying toil, aided again by private munificence, he was able to accomplish this task; and to-day the Agassiz Museum at Harvard—so styled by the people, who obstinately give it the name which the originator refused to associate with his work—remains one of the grandest memorials of this life, so full of eager disinterested achievement. And the very last enterprise in which he took a share shows us in him the same zeal for the scientific advancement of his new fellow-citizens; in them the same enlightened generosity. The plan of forming a Summer School of Natural History on the Massachusetts coast, due to his suggestion and carried out through his energy, was made practicable by a rich New York merchant, who gave a suitable site and buildings in the Isle of Penikese, and endowed the school with a gift of 50,000 dollars. The opening of this school in July, 1873, preceded by scarce six months the death of the great naturalist, who had never laid to heart the farewell words of Cuvier—"Be careful, and remember that *work kills*"—and who was still eagerly working with brain and hand but one week before the dark 14th of December when he had to obey the call, "Come up higher."

It was the solemn "silent prayer" in which the master besought his pupils to unite with him at the opening of the Penikese School that inspired Whittier with his touching, but hardly mournful, poem, the "Prayer of Agassiz," in which the actual scene is set before us with scarcely any poetic exaltation. Here we may hear the voice that, reverently acknowledging the Lord and Giver of life, of light and of knowledge, implored the seekers of truth around him to join in asking from the mysterious Creator light and guidance in their difficult investigations of the mysteries of creation; here we may see the grand countenance, massive and benignant, shining through its "veil of tender awe" with

> "The old sweet look of it,
> Hopeful, trustful, full of cheer,
> And the love that casts out fear,"

impressing all who gazed on it with an unforgetable sense of an added grandeur given by reverent humility in face of the Divine. We can hardly conclude our rapid survey of a life devoted, not only to Science, but to God, more fitly than by this picture, which shows us the true lifelong attitude of Louis Agassiz in regard to his Maker.

Art. II.—INLAND NAVIGATION.

1. *Report from the Select Committee on Canals, together with Proceedings of the Committee, Minutes of Evidence, and Appendix.* London: Henry Hansard & Sons. 1883.
2. *British Railways and Canals.* By Hercules. London: Field & Tuer. 1885.
3. *Report of the Select Committee on Railway Rates and Fares.* London: Henry Hansard & Sons. 1881–2.

WHEN James Brindley—who is almost entitled to share with the Duke of Bridgewater the title of the "Father of Inland Navigation"—was asked before a Committee of the House of Commons what he considered to be the use of rivers, he replied that "they were formed to feed canals." Since he

pronounced this well-known opinion, "an interval of nearly 130 years"—to adopt the language of the play-bills—"has elapsed." Though still nominally regarded as the most important branch of the neglected science of water-conservancy, the child Inland Navigation, which, in the lifetime of its father, seemed to be an infant Hercules, was so nearly strangled in its cradle by the railway companies, that it has never yet fairly recovered, and is still hampered by the serpentine coils of its powerful competitors. Were the ghost of Brindley now to appear before a Parliamentary Committee of the present day, and to ask its members what are the uses of canals, the probabilities are that, as the railway interest is represented by some fifty persons in the House of Lords, and some hundred and thirty in the House of Commons, he would be told that canals, having served their purpose, now only act as hindrances to the development of our railway system, and ought, therefore, either to be converted into new lines or altogether abandoned.

There are, however, many signs that the majority of the nation does not altogether acquiesce in the views held by the railway interest, and Manchester—which more than a century ago was made the terminus of the first real English canal—has now succeeded, after a most arduous struggle, in obtaining the sanction of Parliament to an undertaking which can hardly fail to draw public attention to the neglected condition of British water-ways. "I have no doubt," says Sir Arthur Cotton, in a memorandum laid before the Select Committee on Canals, "that had a hundredth part of the thought and care that has been applied to land carriage of late years been brought to bear on internal water carriage, England would have been benefited to the extent of £40,000,000 or £50,000,000 a year." In the present depressed condition of trade such a statement from a recognized authority on the subject is well worthy of attention; and in support of it we shall proceed to examine some of the evidence contained in the works referred to at the head of this article.

The mileage of the inland navigation of the United Kingdom, including all existing canals and river navigations, together with some eighteen hundred odd miles of non-

navigable rivers, which act as feeders, appears to be about 7,300 miles; that of England and Wales measuring 4,332 miles, that of Scotland 354 miles, and that of Ireland 755 miles. Mr. Conder groups the English portion of this extensive system of water-ways into six great lines, which, as will be seen by reference to a map supplied to the Committee by Mr. Abernethy,* traverse the country in every direction. The Thames, Severn, and Mersey are connected by 648 miles of river and canal, the Thames and Humber by 537 miles, the Severn and Mersey by 832 miles, and the Mersey and Humber by 680 miles; while the Fen Waters have an extent of 431 miles, and the remaining canals of England and Wales amount to 1,204 miles. These furnish no less than twenty through routes for traffic, which unite London and the manufacturing districts with the principal ports, London and Liverpool being connected by *three* routes, London and Hull by *two*, London and the Severn ports by *four*, Liverpool and the Severn ports by *two*, Liverpool and Hull by *three*, the South Staffordshire mineral districts and Liverpool by *two*, and the South Staffordshire mineral districts and the Severn ports by *three*.†

The development of our inland water system seems to have ceased abruptly in 1830, when the last English canals were completed. Of the two hundred and ten rivers in England and Wales only forty-four have hitherto been rendered navigable,‡ nor has any attempt been hitherto made to utilize the other features of our unrivalled water system—the extent of its tidal waters and tidal coast line, which give it advantages over all other Continental nations; the numerous sites for surface reservoirs, which are scattered throughout the valleys of our river basins, and a rainfall which, in England and Wales alone, averages more than 27,000,000,000 gallons annually.§ For half a century the subject of inland navigation has been consigned to oblivion, and a great part of the extensive work

* See *Report*, App. 205.

† See *Report of Select Committee on Canals*, App. 210.

‡ *Ibid.* App. 225, and *cf. Rep. House of Lords Committee on Conservancy Boards*, 1877.

§ See, as to resources of our Water System, an article in the LONDON QUARTERLY REVIEW.

already accomplished has been suffered in some cases to fall into decay, in others to perish altogether.

At the time of the railway mania, 1844–8, the great project formed by Brindley of uniting the ports of Liverpool, Hull, Bristol, and London, by a system of grand canals, from which subsidiary branches might be carried to the contiguous towns, had, in spite of his premature death in 1772, been to a large extent carried out. Though £14,000,000 had been spent in constructing some four thousand miles of canal, the Legislature, instead of protecting the interests of this costly and important system of internal communication, seems to have been carried away by the popular predilection for the new mode of conveyance, and to have entirely neglected them. Either—as is pointed out by Mr. Conder*—it might have preserved the independence of canals by prohibiting their purchase by railway companies, and thus allowed the traffic of the country to find its way naturally into the cheaper and more convenient channel, as it did in the case of the coaching and common road transport; or it might have compelled the railway companies to purchase the canals at fair prices, and to use them for the relief of their lines from slow and heavy traffic, thus probably reducing their capital expenditure by some 50 per cent. It adopted neither course, however, and pursued in preference a policy of "masterly inactivity," of which we are now reaping the fruit.

"With the sole and honourable exception of the Irish lines," says Mr. Conder, "no general idea of policy was entertained. Each proprietor fought his own battle; and there was no one to regard the public interest. And thus the railway companies have been enabled, in some cases by means of very questionable legality, to obtain command of 1,717 miles of canal, so adroitly selected as to strangle the whole of the inland water traffic, which has thus been forced upon the railways, to the great interruption of their legitimate and lucrative trade." †

The term "strangle" thus used by Mr. Conder very aptly indicates the nature of the injurious influence of the railway companies. In many cases, through the powers conferred on

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* *Report of Select Committee on Canals*, App. 238.

† *Ibid.* App. 238; and *cf.* Lloyd Qu. 640–2, 661–4; Abernethy, 1441; Taunon, 2314–6; Morton, 2792–8.

them by Parliament, they converted portions of canals into railways, and then made use of the piece of line thus obtained to sell or lease it and the canal to the large railway company whose traffic was affected by it. In others the purchase of the canal was forced on the companies when applying for power to make their railway; and in others again companies have deliberately and designedly acquired canals in order to crush an existing or possible competitor. It is pointed out by General Rundall, R.E., in his evidence before the Committee on Canals,* that the condition of our water-ways, as compared with railways, is so imperfect that it is impossible to draw any comparison between the two as regards competition; and nothing shows more clearly both the total neglect into which they have fallen, and the invidious distinction which the Legislature has made between the two systems of transport, than the fact that while railways are compelled to furnish most accurate returns to the Board of Trade, that body possesses no statistics whatever as to canals, which are under no obligation to report to it. The railway companies, therefore, backed by the Board of Trade—which the author of *British Railways and Canals* apparently considers to be, to a great extent, under their control—are thus enabled to manipulate canals pretty much as they please, and it will be well to note a few of the modes in which they do so.

To begin with—wherever a railway company owns any portion of a canal system a block exists which effectually prevents the establishment of through routes and tolls. The Railway and Canal Traffic Act, 1854, and the Regulation of Railways Act, 1873, which amended it, directed canal companies to give special facilities for through traffic; and the latter statute provides that no agreement between a canal company and a railway company, giving the latter control over its tolls or management, shall be valid till approved by the Railway Commissioners as being in the interests of the public. Though, however, various applications for through tolls have been made under the Act of 1873, none appear to have been successful; and it is in evidence that, though amalgamations

* See *Report*, Qu. 3060.

between independent canal companies have been effected, they have been rendered abortive by the ownership of some important link by a railway company.* "Almost every through route," says Mr. Lloyd, "has links in it, and some more links than one, under the control and ownership of a railway company; there is scarcely a through ronte in the kingdom where that is not the case."†

The railway companies, however, resort to more active measures still to check their struggling competitors. They so regulate the traffic on their own canals as effectually to fetter all traders who attempt to convey their goods entirely by water. Mr. Clarke, the representative of the Wolverhampton Chamber of Commerce, speaking of the Birmingham Canal, which is under the control of the London & North Western Railway Company, says—"Most of their rules in some way cripple the trade of the district, especially those which have sprung from the iron trade. If a manufacturer cannot prove that he is an ironmaster he has to pay an extra toll on his coal, and, as a further pressure, if a manufacturer has not his manufactory on the canal, although he may have a private wharf on it, he pays still higher tolls.‡

The same witness points out that the London & North-Western and North Staffordshire Railway Companies, the owners respectively of the Birmingham and Trent and Mersey Canals, by charging excessive tolls, keeping those canals narrow, and putting every impediment in the way of canal carriers, have immensely assisted the present prosperity of Glasgow, and completely taken away the trade in common preserving pots from North Staffordshire to the coast. "Had they," he says, "improved our water-ways as the Glasgow people have done theirs, many trades would not have left our neighbourhood."§ These two canals—the Birmingham and the Trent and Mersey and the Shropshire Union, also under the control of the London & North-Western Railway Company—are the most important of those which belong to the rail-

* See evidence of Sir F. Peel before the Select Committee on Canals, Qu. 3417–19, and *cf.* Lloyd, Qu. 312, and Memo by Mr. Burchell, App. 292.

† Lloyd, Qu. 370. ‡ *Report of Select Committee on Canals*, Qu. 3470.

§ *Ibid.* Qu. 3468.

way companies, and being in the centre of England, form important sections of through routes from all parts of the kingdom. Mr. Clarke describes how the London & North-Western Railway Company ruined a carrier named Henshull, who kept fly-boats running between Liverpool, Manchester, Shropshire and London, when they first took over the Shropshire Union Canal. They made it a rule that if his boats did not arrive at a certain lock by 6 P.M. they were detained until 6 o'clock the next morning, while their own boats, or those of a nominee, were allowed to pass. Unless each boat contained eighteen tons he was surcharged three guineas, and although a deposit was offered, a ledger account was refused.* Mr. Clegram, the engineer and superintendent of the Gloucester and Birmingham Navigation, which extends from Sharpness, on the estuary of the Severn, by means of a ship canal to Gloucester, and thence, by means of an ordinary canal, to Birmingham, states that while the whole charge for the carriage of grain from Sharpness to Birmingham is a penny per ton per mile, the rate on passing from the Worcester and Birmingham Canal, either on to the old Birmingham Canal (London & North-Western Railway), or on to the Stratford and Avon Canal (Great Western Railway Company), apart from any carriage or expense, is the same as that charged by the Navigation Company for the whole communication. He further adds that, owing to the control exercised by the Great Western Railway Company and the Midland Railway Company over the trade to and from Avonmouth Docks, the Gloucester and Birmingham Navigation Company have been obliged to suspend the payment of dividends to their shareholders, both on account of the low rates charged by the Railway Companies, and also more especially from the fact that *bonuses*, sometimes amounting to two or three hundred pounds on a cargo, have been offered to merchants to send cargoes into Avonmouth instead of into Gloucester.†

Instances such as the above might easily be multiplied.

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* *Report of Select Committee on Canals*, Qu. 3469. *Cf.* similar cases mentioned in "A Memorial of the Association of Chambers of Commerce of the United Kingdom," *Report of Select Committee on Railway Rates and Fares*, App. 395–6.

† *Ibid.* Qu. 1816–22, 1973, 2050.

Enough, however, has been said to show that the blocks established in the through routes by the railway companies have contributed to induce what Mr. Conder calls a state of "creeping paralysis" among canal companies, and that they have never recovered the final triumph of their wealthier rivals. This, and the superiority in carrying traffic, which the railways can afford to keep up, have apparently combined to prevent the improvements necessary for successful competition.

Mr. Lloyd, in his evidence, points out the great variation in the depth of the water-way in different canals, owing to neglect on the part of the companies. This neglect he attributes to their impoverished condition, and he instances how an important link in the through traffic is lost in the Grand Union Canal, the state of which he describes as wretched. The Stratford and Avon Canal, he says, is scarcely passable. The river Avon, which was controlled by the Great Western Railway Company, is absolutely derelict, and the locks have fallen in. Again, a report on the Thames and Severn Canal presented to the Chairman and members of the Committee of the Associated Canals and Navigations interested, states that:*—

"It is so choked up with mud over a considerable portion of its length, and is in so leaky a condition along its summit and in other parts, that the craft which formerly were enabled to navigate it with full cargoes are now quite unable to do so. . . . . Whilst thirty years since the annual traffic on the canal was between sixty and seventy thousand tons, it has now fallen to about forty thousand tons, and though a considerable portion of this reduction has no doubt arisen from the operation of the railways, yet much of it has undoubtedly been caused by the imperfect condition of the canal, which has placed it beyond the power of the water trader to compete on fairly remunerative terms with the railways."

Mr. Clegram, who handed in this report, also states that the Wilts and Berks Canal is in a very imperfect condition, and that the Thames and Isis navigation "can scarcely be looked upon as a navigation." It may be added, while speaking of the Thames, that the Thames Conservators state in their last report that—

* See App. No. 6 of *Report of Committee on Canals.*

"Notwithstanding the great improvements effected in the upper navigation, the receipts from the barge traffic continue to diminish, and though the receipts from the pleasure traffic have increased in a moderate degree, the revenue of this part of the river still remains inadequate to the proper maintenance of the works necessary to the navigation."

Another reason why competition with railways is rendered more difficult is to be found in the defective construction of the canals themselves—as, for example, in the case of the Trent and Mersey Canal, which is unable to pass boats carrying the full weight they could carry on the adjacent canals. The old canals, as described by Mr. Lloyd, are, as a matter of fact, an enlarged ditch, with a top water of about thirty feet and a bottom of fourteen feet, and with inclined slopes on either side. This method of construction, known as the V-shape, produces a constant silting, and a tendency to fill up at the bottom. Mr. Morton, in his evidence, while condemning this construction, stated that he was unaware of any canal having been constructed on scientific principles in this country, except a short extension of the Grand Junction at Slough.* Hence it would appear that while the locks are neither long enough nor wide enough, the canals themselves also are not wide enough, and are too shallow at the sides to admit of boats passing each other as they ought to do.

In addition to this, throughout Great Britain, and especially in England and Wales, there are scarcely two canals that have a common gauge.

"We find," says Mr. Lloyd, "even upon one canal two or three different gauges of locks. In some instances the canals forming a continuous line are approximately of the same size, but the gauge of the locks is entirely different. . . . . There is nothing like a common uniformity of gauge throughout the whole distance."

He instances the line which the coal traffic from Derby to London took when it came by canal. The *producing* canals were the Nutbrook, Erewash, a portion of the Cromford Canal, and the Nottingham Canal. Thence it got on to the river Trent, with locks of considerable size, and the Soar, with locks of about the same size, so far as concerns the

* See *Report of Select Committee on Canals*, Qu. 2754.

surface water, but with only 3′ 6″ depth on the sills. At Foxtone it entered the Grand Union Canal, which is only seven feet wide, at the western end of which you enter the Grand Junction Canal, where there was a larger sized lock than on any other portion of the route. The average width of the locks throughout was 14′ 6″, but in one link they were only seven feet. The effect of the diversity of gauge in this particular instance is to limit the carrying power of the through route to twenty-four tons.* The same state of things exists in the principal through route from Leeds to the West, and in the Shropshire Union Canal, and in the line from the river Severn at Saul to the river Thames at Lechlade, in which there are three distinct ganges, while the Thames alone has three gauges on it.

Lastly, canals are heavily handicapped by defective management and competition with each other. Independent canal companies are often to be found competing with each other along the principal routes; as, for instance, between London and Liverpool, London and Bristol, Birmingham and Bristol, Hull and Liverpool. Taking the railway systems, there is one competing company carrying the whole of the traffic between London and Liverpool; another that between London and Bristol; another that from Birmingham to Bristol. Taking the route from London to Liverpool by canal, we find that there are *three* distinct routes with no less than *twenty-eight* different companies or navigations. There are *four* canal routes from London to Bristol, worked by *twenty-seven* companies. From Birmingham to Bristol there are *three* routes, in which *ten* companies are concerned. Between Hull and Liverpool there are *three* routes and *twenty* companies. Navigable tideways, such as the Mersey, Severn, Humber, Ouse, and others, are included in the numbers given, but allowing for this, and contrasting the state of things with the comparative unity of railway administration, it is easy to see to what an extent the disjointed and conflicting interests of so many companies along the same route must operate to prevent the acquisition of new traffic, or even the retention of that

* See *Report of Select Committee on Canals*, Qu. 88, 95, 102.

once enjoyed. The great difficulty in the canal system is, in the opinion of Mr. Abernethy, that the companies, especially independent companies, instead of commanding large areas of country, are split up into very small districts, and therefore each company is more or less weak.* The want of continuous management throughout also operates very materially to hinder any improvement. An attempt was made some years ago to amalgamate a large system of canals, including the Grand Junction, the Warwick Canals, the Oxford, the Coventry, the Leicester and Northampton, the Grand Union, the Soar, the Nottingham Canal, and one or two smaller ones; but it failed entirely.† Local jealousies between different sections of canal in the same district have too often militated against all beneficial measures in this direction. Mr. Lloyd illustrates this very well by supposing that a canal owning a short link of communication has got a large product centred upon it, say road-stone, as being a very valuable material. It pays to the originating company a toll of *6d.* per ton, to the next company a toll of *1s.* per ton, and to the third company another *6d.* per ton, making a total of *2s.* But in another direction, to supply a separate and distinct area, in consequence of the severe competition of railways, it is necessary that all the companies interested should take a less mileage toll than forms their proportion of the *2s.* The originating company says, "No, we have got possession of this traffic, and mean to have our *6d.*" And the second company says, "No, we have got possession of this traffic, and mean to have our *1s.*" The third company, therefore, has to bear the whole brunt of the competition, though it is practically the distributing company.‡ This kind of difficulty, Mr. Lloyd states, is of constant occurrence. It appears, however, that there is a certain unaccountable hesitation among the canal companies to take any steps towards amalgamation, even where it *could* be effected along portions of the route. For instance, there is more than 100 miles from the Thames to Birmingham which is practically worked, with regard to traffic, in one hand; and there is nothing, according to Mr.

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* See *Report of Select Committee on Canals*, Qu. 1459–60.
† *Ibid.* Qu. 312–13. ‡ *Ibid.* Qu. 685–8.

Lloyd, to prevent these lines amalgamating and perfecting themselves, except the fear of railway competition north of Birmingham destroying the completeness of the system.* If they were to do so, the London & North Western Railway Company would be induced to appropriate a larger proportion of their recoverable tolls for their portion of the section north of Birmingham, that being a necessary part of the communication. So, again, some time ago the Bridgewater Canal and the Aire and Calder Company entered into negotiations with a view to amalgamation; but, the former canal being managed by a railway board, it was felt that the influence of the railways at the board was too great to admit of the attempt being made.

Granting, therefore, the defective condition of our waterways as above described, it may be asked what benefit would be derived from placing them in such a state as to enable them to compete with railways? This will be best shown by pointing out the evils that exist at present through the powers which the railways enjoy as monopolists. Abundant evidence of this is to be found in the *Report of the Committee on Railway Rates and Fares, 1881–2,"* as well as in *British Railways and Canals,* which summarizes, in an able indictment of our railway system, the chief points at issue.

In the first place, it was generally admitted by the railway companies that they are guided by no basis or principle either in the classification of goods or rates, but that they charge "as much as the traffic will bear"—that is, in the judgment of the railway managers. They contend that, in addition to the mileage rate, they are entitled to make a charge for what is called "terminals"—that is, "accommodation and convenience afforded, and services performed in respect to the goods at the receiving and delivering stations." It is explained in the Report that the maximum statutory rate, or station to station rate, is a sum paid to railway companies to cover all services *incidental to conveyance.* It is maintained by the trading community that this means from the moment of trans-

* See *Report of Select Committee on Canals,* Qu. 751 *et seq.*

fer of goods from a collecting cart to the railway waggon or platform up to the corresponding point at the termination of the railway journey, where goods are transferred from the railway waggon or platform to the cart for delivery. It is, however, contended by the companies that the services "incidental to conveyance" commence only when the train begins to move, and cease when the waggon reaches its destination; and that they are therefore entitled to charge for siding, platform, and shed accommodation, loading, unloading, and the use of fixed machinery, and clerkage. They also contend that their charges for these services are determined by the word "reasonable."* There is abundant evidence to show that these charges for terminals are expended in sidings and the erection of shed accommodation for goods, with a view of monopolizing the traffic, and preventing the competition of common carriers. Thus we find that, taking the capital value of three stations, Smithfield, Bath, and Evesham, it is shown by "Hercules" that half the outlay is swallowed up by sidings alone. Again, taking the item of goods sheds, he also shows that some managers are content with about half the outlay required by others to accommodate the same traffic, and that a comparison of the goods accommodation provided at the Victoria and Albert Docks with that supplied by the railway companies, shows a much greater economy on the part of the former. The fact is that the necessity for "terminals" arises in the first place from the number of different railway systems frequently comprised in the same route, and in the next place from the congestion of traffic vastly in excess of the carrying powers of the companies. When therefore we find the London & North Western Railway Company spending nearly two millions on their goods station in Liverpool, and more than that sum on their goods station in London; and when we are told that there are thirty-eight miles of siding at Edge Hill, near Liverpool, and twenty miles of siding at Willesden, where it should be noted that the traffic is still *in transitu*, we feel that the companies should be deprived of their excuse for such lavish expenditure by promoting the revival of water transit.

* See *Report of Select Committee on Railway Rates and Fares*, 1882, Rep. iv., v.

Secondly, the inequality of mileage-rates from different parts to the same inland point is another evil resulting from railway monopoly. For example, the rates for cotton from Barrow and Fleetwood to Manchester are in each case 9*s.* per ton, the distances being respectively 87 and 50 miles; the inequalities being accounted for by the facts that the docks at Fleetwood are controlled by the Lancashire & Yorkshire Railway Company and the London & North-Western Railway Company, and those at Barrow by the Furness and Midland Railway Companies. Again, Mr. James Duncan stated to the Committee that the station-rate for sugar from London to Middlesborough, a distance of 238 miles, is 23*s.* 8*d.*, while that from Greenock to Middlesborough, a distance of 237 miles, is only 12*s.* 8*d.*; thus reducing the cost of carriage to the Greenock refiners by nearly one-half. To give one more example—the rate per ton for tea from London to Exeter, a distance of 194 miles, is 33*s.* 4*d.*, while only 24*s.* 2*d.* per ton is charged from London to Plymouth, which is 53 miles further in distance.*

Another evil, which can only be named here, but which is very serious in its effects, is the facility enjoyed by the Railway Companies of handicapping small traders by giving reduced preferential rates to larger ones by means of *drawbacks, rebates, ledger accounts,* and *preferential classifications* of the same article. One instance however may be given. Mr. Hawkes, one of the largest glass manufacturers and dealers, and a delegate from the Birmingham Chamber of Commerce, stated that his firm, on account of their extensive business, were charged a lesser rate than smaller traders, and that he knew this to be the case, because he had once been a small trader himself; adding when pressed by Mr. Lowther (a London & North-Western Director), "I could give you our own instance. We paid for years 50*s.* to London, whereas we now get it carried for 28*s.* 4*d.*"

A far more serious charge, however, against the railway companies is the practice of exacting differential rates for English and foreign products, which, in certain articles, are

* See *Report of Select Committee on Railway Rates and Fares,* 1882, Rep. viii.–xii., Qu. 577, 1297, 1039–1041, 1065–8; and *British Railways and Canals,* pp. 33–6.

enormously in favour of the latter. Some examples of this will be found in the following table, compiled from the trade reports for November, 1885 :—

Agricultural and Farm Produce.	Home.			Foreign.		
	£	s.	d.	£	s.	d.
Cattle—Newcastle to Wakefield (small waggon)	2	17	3	1	16	0
,, Newcastle to Manchester (small waggon)	3	7	0	2	4	3
,, Glasgow to London (large waggon)	11	5	0	9	5	6
Sheep—Newcastle to Manchester (small waggon)	2	14	0	2	4	3
Meat—Newcastle to Hull (medium waggon)	3	7	9	2	9	9
,, Liverpool to London (per ton)	2	10	0	1	5	0
Eggs—Cherbourg to Manchester *vid* Southampton		...		2	18	0
,, Southampton to London	3	0	4		...	
Seeds—Paris to Chester *vid* Weymouth		...		1	7	0
,, Weymouth to Chester	1	15	0		...	
,, London to Chester	1	17	6		...	
Cheese—Liverpool to London		...		1	5	0
,, Liverpool to Newcastle	1	17	6	1	0	0
Butter—Cherbourg to London *vid* Weymouth		...		1	10	0
,, Weymouth to London	2	5	0		...	
Grain—Havre to London		...		0	10	6
,, Southampton to London	0	6	8		...	
Hops—Boulogne to London		...		0	19	7
,, Staplehurst to London	1	17	2		...	
Fruit—Boulogne to London		...		1	5	0
,, Folkestone to London	1	0	0		...	
Potatoes—Belgium to Manchester		...		0	14	0
,, Perth to Manchester	1	7	6		...	
Materials and Manufactures.						
Flax—Hull to Belfast		...		0	18	4
,, Selby to Belfast	1	6	8		...	
Linen—Liverpool to London	1	17	6	1	5	0
Woollen and Worsted Goods—Manchester to London	2	0	0	1	5	0
Coals—Lancashire to Widnes for export		...		0	1	2
,, Lancashire to Widnes for home use	0	2	6		...	
Iron Girders—Antwerp to Birmingham *vid* Grimsby		...		0	16	8
,, Birmingham to Grimsby	1	0	0		...	
Timber—Cardiff to Stourbridge	1	1	8	0	10	10
,, Newcastle to Nuneaton	1	11	8	0	14	2

In consequence of this it is said that large works have been removed from inland towns to the seaboard in order to escape the heavy freight-charges levied by the railways. As has been pertinently remarked, if the companies are allowed to subsidize foreign imports in this fashion it is useless to complain of foreign competition.

The question of foreign competition naturally suggests a consideration of how our continental rivals have dealt with Inland Navigation. Here we invariably find a system of wholesome competition between inland navigations and railways, of which the State itself is often the owner.

In France, for example, the length of water way opened in 1878 was 7,400 miles, and vessels of 300 tons will shortly be able to pass through France from the Mediterranean to the British Channel. All the principal rivers—the Rhone, the Loire, the Seine, the Garonne—are included in this system, upon which, in 1872, forty-three millions sterling had been spent, and upon which it is proposed to spend forty millions more. Thanks to the competition thus established with the railways, it has been proposed to adopt an average rate on the latter, for passengers of 0·53*d.* per mile, and for goods of 0·76*d.* per mile. Against this facility enjoyed by his French rival the English manufacturer pays an average of 1·28*d.* per mile for passenger and 1·08*d.* per ton per mile for goods traffic. A comparative view of the communications by land and water between the two countries shows that while the population of France is 180 souls per square mile, and that of the United Kingdom is 702, the mileage for every 10,000 souls in France is 2 of canal and 4·1 of railway communication, while in the United Kingdom it is 4·1 of canal and 21·3 of railway; in other words, while in France, whose area is nearly double that of the United Kingdom, the mileage of railway communication is only just double that of canals, in the latter it is five times as great, and much of the existing water-way is either derelict or defective in construction. Hence it is not perhaps surprising to find that the tolls on the first *ten* miles of the Birmingham Canal amount to *four times* the *whole rate* per ton per mile of the carriage by water from Strasbourg to Paris—315 miles; that while the net earning on capital on English railways remained stationary from 1854 to 1880, that on French railways rose from 3·11 to 5·56 per cent., or by nearly 29 per cent.; and that while in 1877 the gross revenue per mile of the six great French railways was £2,887 on a capital cost of £25,780, that of English railways was on an average £2,881 for passengers and goods *plus* £805 for minerals on a capital cost of £39,472

per mile, or 53 per cent. more than that of the French lines.*

Again in Belgium, which has an area of 11,380 square miles, with a population of 420 souls to the square mile, we find that the canal mileage amounts to 1,254, while that of the railways is only 1,196. Here, according to Mr. Conder, canals have ruined the railways. The object of the Belgian Government being to make their rivers free, the water-ways have so taken the traffic from the railways that the State incurs an annual loss of five million francs in working them. The fact is, that in Belgium, as in France and in America, the great question at issue is not the separate interests of the railway and canal companies, but how the public can have the cheapest transport. Owing to this policy we find that articles such as raw silk, sugar, butter, ale, timber, iron, and grain can be transported for distances varying from 32 to 275 miles, usually at *one-half* and sometimes at a third of the cost at which they can be carried in this country.†

With regard to America, while the canals in 1873 transported 1,170,000 tons of freight, this amount rose in 1880 to 6,457,000 tons, so that, to quote Mr. Conder, "while *our* canals have been strangled and are drying up, in spite of the enormous extension of American railways, which are now 84,000 miles, in spite of the low rate of charges, which is one-half the cost in this country, the canals have sextupled their traffic."

In Sweden, canals and railways work side by side harmoniously; in Italy there are 5,428 miles of canal to only 4,790 of railway; while in Russia, Holland, and Germany, inland navigation is also being actively developed, and is, according to Mr. Meyer, engineer of Liverpool and Berlin, becoming of immense importance to the trades and industry of those countries, as well as of France and of Belgium. In a letter to the Wolverhampton Chamber of Commerce, he says that it proves an effectual barrier to the monopolies and encroachments of the railway system, and he adds that "about 250 miles of modern canal to unite the great centres of

* See *Report of Select Committee on Canals*, App. 232, 238, 239, 24

† *Ibid.* Qu. 2390–2405, App. 232, 239, 260.

industry with our seaports would do more for the good of this country than any number of competing railways, and it is matter for regret that sufficient means cannot be found to demonstrate this practically."*

This leads us to inquire what the benefit anticipated from an improved water transit would be. This is well explained in two appendices to the *Report of the Select Committee on Canals*—"A Report of the Comparative Cost of Transit by Railway and Canal," by Mr. Conder, and a "Memorandum on the Policy of Water Carriage in England," by Lieut.-Gen. Rundall, R.E.

To begin with, water transport is more economical than any other mode of carriage. It involves no item of cost equivalent to the wear and tear of rails, sleepers, and fittings, or the maintenance of permanent way, or to the repairs of vehicles and locomotives. While the average cost of railways in England and Wales is £46,000 per mile, that of canals is probably not more than £3,350 per mile, and hence for equal volumes of traffic the cost of maintenance of a railway is four times as much as that of a canal. Traffic expenses on canals are also one-fifth of those on railways, on which this item amounts to 30 per cent. on the expenditure.

Again, any class of goods can be carried by canal in the manner and at the speed most convenient and suitable for it without interfering with other classes, while not only can boats stop anywhere on their journey to land or ship cargo instead of at certain fixed stations, as is necessary on railways, but the boat itself often serves as a warehouse, and the probabilities of damage to cargo in transit are reduced to a minimum.

Lastly, the capacity for traffic on canals is practically unlimited, even in the case of canals with locks, provided they are properly designed. The dead weight to be moved in proportion to the load is also much less in the case of canal carriage than in that of railways; for while an ordinary railway truck weighs nearly as much as its load, the cargo boat carries four or five times its own weight. Traction on the railways of the United Kingdom costs 16 per cent. of the expendi-

* See *Report of Select Committee on Canals*, Qu. 3476, and *cf.* App. 232, and *British Railways and Canals*, pp. 102–104.

ture, while, according to Mr. Conder, it amounts to half that figure on canals.

We have endeavoured to lay before the reader the vast undeveloped resources of our inland navigation, the neglected condition of that portion of it hitherto utilized, and the causes which have tended to its deterioration. We have also pointed out the evils of railway monopoly, the superior advantages enjoyed by those countries where the growth of railway traffic is held in check by a well-organized system of water transit, and the comparative advantages of transport by rail and by water. It remains to examine what means can be adopted for the due development and maintenance of our water-ways; and in doing so we shall, as before, confine ourselves chiefly to the opinions and suggestions of those who gave evidence before the Select Committee on Canals.

General Rundall, in his "Memorandum on the Policy of Water Carriage," above referred to, condenses the points requiring attention in the canal system of the United Kingdom under the three following heads:—

(1.) *Improvement in construction*, which would include uniformity of gauge in canals and locks, and their adaptation to steam haulage, improvement in the construction of canal-boats, and facilities for loading and unloading at important industrial centres.

(2.) *Amelioration of administration*, which would include the regulation of tolls, the establishment and maintenance of through routes, and the formation of a systematic service of boats.

(3.) *Controlling supervision*, which would include the questions of amalgamation, or control by a central Government authority.

Firstly, with regard to construction, while Mr. Abernethy estimates that an expenditure of £12,000 per mile on our canals would render them fit to compete with railways, Mr. Conder and General Rundall calculate that from £5,000 to £6,000 per mile would be sufficient. The question of expenditure on improved construction is therefore at present one of calculation among experts, and it appears to us that it would best be decided by adopting the suggestion of Mr Conder,

that some professional engineer should be appointed to make surveys of all our canals, and to report upon them.

With regard to steam haulage, we are also met by diversity of opinion among authorities. On the Rhine the traffic is entirely drawn upon a steel wire rope laid along the middle of the river, the rope being taken over a wheel, and passed through a clip drum, and dropped astern of the tug towing the boats. In parts of France the same system obtains, with the exception that a chain is substituted for the wire rope; the object, in both instances, being apparently to avoid "wash." Both Mr. Conder and Mr. Lloyd appear to be in favour of this method, and the former is of opinion that it might be modified with advantage if each boat carried its own little wire rope. Mr. Abernethy, on the other hand, prefers ordinary steam haulage, as used on some French rivers and Dutch canals, and is of opinion that it is less costly than horse haulage where the boats are sufficiently large, as in the case of the Aire and Calder Canal. Mr. Bartholomew, the engineer of this canal, says that for large canals there can be no question as to the cheapness of steam haulage, and that upon the Aire and Calder it has succeeded beyond his expectations. He has calculated the cost of three classes of haulage, and finds that, taking the first, of merchandise towed by *tugs carrying cargo*, the cost is one thirty-fourth of a penny per ton per mile; taking the second class, of merchandise towed by *tugs not carrying cargo*, it is one-seventh of a penny; and taking the third class, *horse haulage*, it is one-fifth of a penny per ton per mile. This opinion is endorsed by "Hercules," who states that tramway companies find the cost of steam traction to be half that of horse traction. As, however, screw barges waste power and injure the canal, and as the capital involved in steam power is wasted during the loading and unloading of the boat, he would substitute for the horse a locomotive and a line of rails on the towing-path. He calculates that the cost of such a line, with a locomotive to every five miles of canal, would be £1,500 per mile, and that of each locomotive £1,000; and that a weight of 400 tons could be thus drawn at a speed of three miles an hour at 4½*d.* per mile. In favour of this system of steam haulage it may be urged that it would

enable canal companies to act as their own carriers, and thus compete more effectively with railways. All the authorities agree, however, that, before attempting any large or comprehensive scheme of steam haulage, the canals and locks must be enlarged, and their construction generally improved.

Closely connected with the question of haulage is that of boats. Both Mr. Lloyd and Mr. Conder, as well as General Rundall, agree that the narrow boats at present in use are conducive to waste in working, and it appears that in the larger manufacturing districts there is sufficient traffic for boats of 200 tons and upwards. For a vessel with a carrying capacity of 120 tons, Mr. Lloyd recommends a length of 110 feet, a width of 11 feet 6 inches, and a depth of 6 feet; while for boats of 200 or 300 tons, General Rundall would have a length of 150 feet, a breadth of 20 feet, and a draught of about 8 feet. On the Aire and Calder Canal there is a system of *boat-trains* in use, devised by Mr. Bartholomew, the engineer of the canal, the maximum total weight carried being 900 tons, and the average 700 tons. Such a large reform in the size of barges as has been above indicated would presumably be beyond the means of private owners. Were, however, the canal companies, as we have above suggested, their own carriers, the necessity of competing with railways would oblige them to maintain an adequate and well organized barge service.

With increased facilities for water traffic, we should probably find that increased facilities for loading and unloading would of necessity be established. We have it on the evidence of Mr. Morton, member of a Wolverhampton firm of railway and canal carriers, that in the Birmingham and South Staffordshire districts nearly all the important works are erected on canals, and large prices are paid for land having canal frontage. He accounts for this by the fact that, for short distances, canals are far the cheaper route, as boats are able to go alongside the works without transhipment, or the great expense of making and working sidings. "Every part," he says, "of a canal is in fact a siding, or at least all that is necessary to make it so is to put in a wall and deepen the water for a boat to go alongside."* The same point is illustrated by the late Sir

* See *Report of Select Committee on Canals*, Qu. 2623-5.

Bartle Frere, with the delay entailed by the transport of home produce for home consumption by sea. "Your large sea-going ship," he says, "must be placed in some sort of dock . . . . which often creates more delay and causes more expense than the canal wharf. . . . . One great advantage of a canal, in the way of loading and unloading, is that almost the whole length of its side may be a wharf."*

It will be convenient to consider together the subjects comprised under the second and third heads of General Rundall's classification. The questions of uniformity of tolls and the maintenance of through routes are manifestly dependent on that of amalgamation, or control by a central Government authority.

There seems a consensus of opinion that all the main routes should be under one controlling authority. But it is difficult to see how sufficient pressure could be brought to bear on the different units forming the system to compel them to amalgamate. One practical suggestion from this point of view was made by Mr. Clark, who recommended that the canals should be amalgamated and improved by means of Government funds, in right of which there should be some control vested in the Government, who should advance money, as was done in the case of the Suez Canal. He would let each canal company manage its own particular branch, leaving the public free running powers over their canal, and establish a clearing house as in the case of the railway companies. On the other hand, Mr. Lloyd, Mr. Abernethy, and General Rundall, advocate the purchase and administration of canals by the State, as is the case on the Continent; while Mr. Conder and Mr. Vernon Harcourt speak in praise of the good policy of Foreign Governments in this respect, though they hesitate to advise the adoption of a similar one in this country.

It seems to us, however, that the key-note of the whole question is struck by General Rundall when he points out that the tendency of proposed legislation is to treat it as a Municipal,

* See *Report of Select Committee on Canals*, Qu. 3026–7, and *cf. Report of Select Committee on Railway Rates and Fares*, Qus. 3451–3, 3603–4.

whereas it is essentially an Imperial one.* It seems to be granted on all sides that the railway monopoly should be broken, and that the State must exercise some controlling power over canals. As pointed out by General Rundall, the public have derived advantages from the State management of the Post Office and Telegraphs which they might have looked for in vain had these enterprises remained in the hands of private companies; and it may be fairly anticipated that it would reap similar benefits by the adoption of a like policy in regard to waterways.

More than this, however, inland navigation forms but one branch of the great subject of water conservancy which has already been treated in this REVIEW. As we then pointed out, it is so intimately connected with the kindred branches of water supply, prevention of floods, fishery, and the prevention of pollution, that it can only be satisfactorily dealt with when taken in conjunction with them.

It would be hopeless to expect that such a far-reaching scheme could be carried out at once; but probably no better beginning could be made than the purchase by the State of the canals, and the placing them under a specially organized Department. The control of water supply, and the dealing with floods caused by surplus water, would almost of necessity ultimately come within the jurisdiction of such a Department. We would suggest that were the Government to invite a loan for the purpose of buying up the canals, an immense incentive would be given to commercial enterprise. Not only would the facilities for trade be largely increased by doubling our means of communication, but, to quote the words of General Rundall, "A profitable opening would be possible for the disposal of some of the large amount of capital now seeking profitable investment, and a new and additional field of employment would be opened to the labouring and industrial classes who are now struggling to obtain even a bare subsistence for themselves and their families." †

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* See *Report of Select Committee on Canals*, App. 261. † *Ibid.* App. 261.

Art. III.—MARINE MESSMATISM.

ONE of the most interesting features of life in the waters is that which has been called "Commensalism," or, if we may adopt a newly coined word, "Messmatism"; by which we do not mean Parasitism. The distinction between the two may be defined briefly and intelligibly. Parasites, such as intestinal worms, the whole tribe of fleas, the mistletoe and dodder among plants, the larvæ of legions of insects—these feed upon the animals or plants which give them a home. But commensals feed with one another, and with, not upon, their common host. They say, "Let us have one table. Give us a bed and we will all share the board." In the strictest sense they are messmates; and, so far from injuring one another by the intimate relation in which they are found, their co-partnership in hunting, holding, killing, tearing, and feeding is mutually advantageous. On land there are many illustrations of this tendency, as every entomologist and every frequenter of farmyards and zoological gardens knows. But our chosen sphere of observation just now is the world of waters, where, so far as invertebrate life is concerned, messmatism is the rule, and not the exception. That we may bring a large and tempting subject within reasonable limits, let us select one example. It shall be the hermit-crab, than which no more typical study can be found in our English waters.*

Upon these curious creatures Mr. Drummond has rained a quiverful of poliahed satires. The importance he attaches to his onslaught is evident from the fact that he has pilloried one member of the unlucky family on the very cover of his book. Inside the book, in one of its cleverest chapters, he makes them the text of eloquent and most impressive

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* *Natural Law in the Spiritual World.* The references in this Article are to the chapters on *Semi-Parasitism* and *Parasitism*. For a popular presentation of the doctrine of Degeneration, the following works may be consulted:—*The Natural Conditions of Existence as they affect Animal Life.* By Karl Semper. International Scientific Series. *Animal Parasites and their Messmates.* By P. J. Van Beneden. International Scientific Series. *Degeneration.* By Prof. E. Ray Lankester. Nature Series.

preaching on backsliding, laziness, cowardly soul-saving, degeneration, Popery, extreme Evangelical dogmatism, and various other matters, moral and theological. His words are beautiful, his ingenuity boundless, his reasoning subtle and captivating. But those who go forth into Nature's fields and depths, expecting only to find that every living thing is fitted, even in its power of self-adaptation, for the fulfilment of its proper functions in its allotted place and day, will be apt to think that there may be a truer and more reverent way in which to learn the lesson taught by the hermit. Some day a competent naturalist may arise to do for the hermits of the sea the kindly service which Charles Kingsley did for the Hermits of the West. Meantime, we may be permitted to suggest that no creature degrades itself by utilizing buildings which have served the primary purpose for which they were constructed, and which, but for the intervention of the great law of "conservation," would lie upon the ocean-floor comparatively useless litter. Moreover, if it can be proved that by using the old whelk-shell the hermit makes life not only safer for himself, but happier for other creatures, by what right do we fling opprobrious epithets upon him? As for the degradation of a portion of his organization, we have first of all to define what really constitutes degeneration—a task far more difficult than many imagine. The theories of natural law, which Mr. Drummond seeks to identify with the principles governing the spiritual world, would teach that, even in man, there has been a degeneration of organs, and that the nobler the human type the more complete the process in certain directions of degradation. Finger nails are of very little use except for scratching our epidermis and opening our penknives. Our tails! Why have they vanished? We suspect that not a few of the selected illustrations of degeneration are melancholy indications of an arbitrary dogmatism, which, when exhibited in theological spheres, exasperates the scientific mind. But suppose we are able precisely to define physical degeneration, we have then to prove that our little friend actually has suffered deterioration of parts. It might fairly be argued that the tail and hind legs and unmailed abdomen of the hermit, in their way and for their appointed purpose, are quite as wonderful

as the analogous organs of a lobster. For a whole hour a hermit-crab on board our cutter successfully defied the efforts of three strong and crafty men to extract him from a shell, which we wished to preserve without its inmate. The organ by which he thus held on and "saved his life" is scarcely to be despised as degenerate. Altered it may or may not be; but, for its own true purpose, it is incomparably more useful than the most elaborate and ornate crustacean tail in all the wide sea. It is the sheerest nonsense to say that this or any other form of semi- or full-blown parasitism is "one of the gravest crimes in Nature"; or that "the parasite has no thought for its race, or for perfection in any shape or form"; or that "each member lives exclusively on its own account an isolated, indolent, selfish, and backsliding life." The parasite is not "a consumer pure and simple," any more than are a thousand other creatures in which, whether in their embryonic or perfect form, there is not a trace of parasitism. No practical naturalist, who is free from the bias of a novel theory, could possibly write as Mr. Drummond has done. Yet his book will not have been written in vain, if it serves as a salutary warning to those of us who are wont to see all facts, both natural and spiritual, through the highly refractive medium of imagination. It cannot be too distinctly remembered that as soon as we begin to apply the phraseology proper to the treatment of questions belonging to intelligent and moral beings to the life-history of creatures which have, and can have, no motives, no principles of conduct, no powers of free choice other than instinctive, we run the risk of impaling ourselves on the horns of a dilemma.

The hermit-crab, so far as we know, has not yet found a champion to defend its character. In default of a better, we will attempt the task, frankly confessing, however, that our main purpose is not to rout the foe, but to bring out that better and nobler side of nature, which, as it seems to us, Mr. Drummond and others have obscured.

In a rough extemporized tank three hermit-crabs are at this moment leading a merry, and by no means cowardly, lazy, or purely selfish life. But of this our readers shall have an opportunity of forming their own opinion. Originally there were four hermits in the tank; but one perished, and it was

his death which led to the events now about to be related. For the sake of clearness and precision it will be better to number and identify the individuals.

No. 1 is the strong-limbed rascal who defied our efforts to extract him, and for whom, as for all valiant defenders of their rights, we entertain a sincere regard. His house is garnished with brilliant opalescent crow-oysters, which, so say the fishermen, are bitter as gall. No wonder that in the long-past ages, when the huge masses of shell-rock about Tilly Whim were formed, this curious little oyster survived and multiplied so prodigiously. No shell-boring mollusk or cliona-sponge, so far as we know, ever cares to be at the pains to drill a hole into that bitter morsel.

No. 2 bears upon its back a remarkably fine acorn-barnacle and two smaller ones. We omit for the present all reference to other messmates, because they are not prominently concerned in the special problem with which we are dealing.

No. 3 inhabits a small natica-shell, covered entirely with hydractinia—a colony of hydrozoa, consisting of hunting polypes which catch prey, of feeders, of fighters, whose only purpose appears to be the defence of the colony, and of richly coloured polypes of two distinct kinds, which take charge of the reproductive functions. These are all united in a common life by a fine network of canals, strengthened by little serrated pyramids of hard horny matter. To the naked eye the whole organism presents a white velvety appearance, covering the whole shell. At the mouth it hangs in a kind of tasselled fringe.

No. 4, in addition to other messmates, including, like No. 3, hydractinia, is honoured by the friendship of an anemone, which, when fully expanded and in good health, is much larger than the shell it surmounts. It is known as *Sagartia parasitica*. Its organization is perhaps more perfect than that of any other British anemone; and that, be it observed, in spite of its semi-parasitical habit. In colour and general appearance it a little resembles a passion-flower.

We now have four shells, bearing respectively oysters, barnacles, a zoophyte, and an anemone—all tenanted originally by hermit-crabs. Fortunately for the interest of this article,

crab No. 4 died, and was duly devoured. For, by a singular provision of Nature, no sooner does a hermit become conscious of approaching dissolution, than he considerately vacates his shell. We never find a dead crab inside a shell. Invariably he leaves a clean house for his successor, and honourably bequeathes his carcase to the first hungry scavenger who may chance to pass that way.

Now the death of No. 4 with the sagartia led to the following rearrangements of messmates. Our defiant friend, No. 1, wandering around the tank, stumbled upon No. 2. To his evident surprise he found the shell empty. It was neither larger nor better than his own. In point of beauty it was not to be compared with it, for the crow-oysters glittered with rainbow hues, whilst the big barnacle on the empty tenement rose like a sturdy tower, rough and threatening. Yet he eagerly prepared to remove. First he carefully surveyed the interior, thrusting his longest claws far into the empty shell, as though anxious to learn whether his desire for a new home might be safely gratified. In this he acted prudently. For if he had thrust his unprotected tail into the unexplored dwelling, and a small crab had been there in hiding, short work would have been made of the juicy morsel. And what is a hermit worth without his tail? Meantime, the other inmates of the tank hurried to the scene of action, ready to seize upon house, tail, or other chattels likely to turn to their advantage. Satisfied with the result of his investigation, quick as thought, out came the hermit from shell No. 1, shot himself, tail first, into No. 2, and scuttled away in triumph.

No doubt the hermit often effects exchanges like this simply in its own interest, or even out of mere caprice. But certain incidents in crab-life, which it has been our good fortune to witness, would lead to the conclusion that it is, at times, influenced by a combination of instincts, partly selfish and partly commensal. For itself it lives first. But it owes, and in its way discharges, certain useful offices for messmates; and, occasionally, this unselfish instinct appears to override the first, and usually strongest, passion. The creature unquestionably likes to fight, to feed, and to make itself safe and

comfortable; but, somewhere in its ganglionic consciousness, Nature has implanted—what shall we call it? a sense of duty? an instinct not wholly selfish? a subtle tendency to subserve the public weal? Call it what you will, the result is that this crab occasionally does things which, so far as we can at present see, are much more for the advantage of its messmates than for its own, and refrains from other actions which would very materially enhance its own safety and comfort.

Here in the same tank is No. 3, covered with hydractinia. To this crab a change of residence would be an advantage, for its present abode is obviously a tight fit. There lies a handsome, roomy, oyster-covered shell, out of which the crab has just seen the old tenant go. Why does he not take possession? We can only reply by a surmise, which, even although future observation and experiment should explode it as a mere phantasy, it is worth while making, because, very often, a tentative explanation leads eventually to something demonstrably true: the crow-oysters do not suffer so much by the loss of their chief messmate as the barnacles, to whom he has transferred his friendship, gain. The proof of this assertion depends partly on physiological differences, and partly on actual observation under both natural and artificial conditions. But, without a doubt, if the hermit forsook the shell upon which the hydractinia is flourishing, the whole mass of polypes would quickly perish. This zoophyte has so arranged the members of its composite polypary that it can only live in virtue of the wandering habits of its messmates. Look at those long fringes hanging around the mouth of the shell. Is not their purpose quite evident? Sweeping the water in the narrow fruitful space between the rim of the shell and the floor of the ocean, they can catch just the kind of food they need. Resting in one place, they would be all but useless, and the whole colony would soon die. As a matter of fact, a hydractinia-covered shell without a tenant soon loses its hydrozoic mantle, whereas, even in a small aquarium, a hermit inside the shell enables the naturalist to preserve the specimen for many weeks.

But it may be said, What about the hermit No. 2 who ran away from the barnacled shell? Strange to say, he also,

by so doing, conferred a benefit simply incalculable on another and still needier creature, or rather on two creatures; for No. 4 shell was crowned with a sagartia and curtained with hydractinia. When the hermit with whom the anemone messed died, his companion, as is invariably the case, languished. Unless a new tenant had been found, she would soon have forsaken the empty shell, and would have wandered about with retracted tentacles and shrunken frame; for she loves companionship, and cannot thrive without it. We once kept one in this condition through a weary winter, far away from the sea; but when, in the springtime, a hermit-crab was sent to share her captivity, she brightened as at the coming of a friend. The crab, strange to say, recognized her, and went to her side coaxingly. Within four and twenty hours she was proudly displaying her tentacles in almost pristine loveliness on the top of the "poor-house." Eventually she went with her messmates to the Zoological Gardens, where, sad to relate, she fell a victim to heat and environment. Happily for the anemone now in our possession, there was a crab at hand willing to take possession of her "house to let." No sooner had he done so than she lifted her drooping body, filled her somatic cavity with water, opened her tentacles, and by every means possible to so lowly a creature signified her satisfaction at the improvement in her affairs.

These facts, though few, are sufficiently complete and harmonious to establish a *primâ facie* case. They indicate that the hermit-crab is no more a pauper than he is a hermit; that, amongst the living things which pass through the paths of the sea, he ranks far higher than a mere scavenger; that he much more nearly resembles the knight-errant, rough and riotous, yet not wholly ignoble; that his borrowed shell no more degrades him than the coat of mail degraded the knight; that he is endowed with a distinctly social instinct; and that in what he does and in what he refrains from doing he is as obedient to that law of commensalism, which binds together the world of life, as the sun and its planets are said to be to the "sweet influences of the Pleiades." Thanks to research and aquarium-experiment, it is now possible to draw a picture, imaginary yet true, of what happens every

day in the depths of our shallow seas. A crab catches a prawn which has just moulted its shell. With his strong pincers and knives and forks he tears it to pieces. Morsels sufficiently small to be of use to serpulæ, barnacles, hydractinia, and other messmates, float away from his mouth, and are drawn in by the whirring cilia of the annelids and cirripedes, or are caught by the long trailing hunting polypes of the zoophyte. The anemone, conscious that dinner-time has come and that the table is spread, bends over, and, drooping her long urticated tentacles towards the feast, touches a morsel. Instantly one of the thread cells which cover the tentacles is ruptured, the invisible cord with its poison dart envelopes the morsel, and the anemone joins her companions in the ancient and noble art of eating. In many other ways we can imagine the crab to be of use to the anemone. But we cannot so easily understand how the service is repaid. It may be that the anemone and all other external growths act as a defence against shell-boring mollusks, which, if they once pierced the outer wall, would destroy the unmailed abdomen within. Or, it may be, that it stings and stupefies into a capacity for being caught more fish than it cares to eat. But these are mere guesses, obviously far-fetched, whereas the service done by the crab to the anemone is capable of actual demonstration. If we must seek analogies between the instinctive deeds of invertebrate life and the moral actions of intelligent creatures, let us, in common justice, give the lowlier forms of life credit for such indications of unselfishness as are presumably discernible in them.

From a purely zoological point of view we maintain that *Pagurus bernhardi* has *not* forfeited its place in the scale of animal life. That it has lost morphologically is quite likely, though even of this we cannot be sure. That it has gained physiologically is equally probable. Its loss is against its own safety, its gain is in favour of the well-being of its messmates. In other words, pagurus fully armoured, with a perfect carapace, would be, on the whole, more secure than it is now. For, except at moulting times, which with their special perils it now must pass through, it would possess in itself as complete a defence as any other crustacean, and would be able to move about more freely. But pagurus, living in a borrowed shell

and compelled by the defenceless condition of its hind quarters thus to utilize waste structures, is sufficiently safe, and, at the same time, is able to confer peculiar advantages upon an astonishing variety of unrelated or distantly related creatures. It rescues the product of molluscan architectural craft from uselessness. It provides a sheltered home and abundant food for the unarmoured annelid which shares with itself the interior of the whelk-shell. It supplies a firm foundation, a usefully locomotive life, an unconscious fighting protection, and daily portions of surplus food for barnacles, anemones, serpulæ, hydrozoa, polyzoa, foraminiferæ, crow-oysters, and, more rarely, sponges and tunicata. It may be objected that other crabs, which do not hide themselves in "houses which they have not built," also fulfil these physiological functions of correlation to other life, carrying about, indeed, on their hard shells certain of these same messmates. But it is obvious that the moulting necessities of these species must render them less helpful to their friends than the vilified pagurus. When the hermit is driven by the exigencies of growth to seek a larger home, his old house with all its colony of dependent life is quickly taken possession of by a younger hermit, and so, under the protection and with the assistance of a new friend, the happy family takes out a new lease of life. Whereas the moulted shell of the fiddler, or spiny, or spider, or Dorset, crab lies useless at the bottom of the sea to be slowly covered with ooze, whilst all its inhabitants inevitably perish.

It is surely a significant fact that this habit of seeking a safe shelter in a disused univalve is associated with a tendency towards friendly messmatism in one of its most perfectly developed forms. Does it not appear as though we could put our finger upon the point in crustacean life-history at which this strange tendency to befriend other forms of life had its genesis? Pagurus, from the moment when it emerges from its free-swimming zoæa condition, is compelled to look outside its own organization towards some other citizen of the great world of organized life. Finding security in the fruit of molluscan toil, it is brought unconsciously into alliance with life in a new sphere. To that sphere an ever-increasing number of diverse creatures are also instinctively drawn. They

do not incommode, or hinder, or injure one another. Pagurus himself lives and thrives. In proportion as he succeeds in the struggle for life, do all his strangely assorted messmates prosper. What wonder if he falls into the habit of doing some things which help his messmates, and of not doing other things which would injure them? Yet he is ferocious, cruel (alas! that we carnivorous men should be so inconsistent!), hungry, and ruthless in his slaughtering propensities. Could he but get at the little fairy hand thrust out from between the opening barnacle-plates on the summit of his shell, or could he seize the tinted crown of ciliated tentacles which the serpula displays from the mouth of its marble tunnel, he would, no doubt, devour without mercy. Pity?—he knows it not. Yet, with a significant inconsistency, he makes no attempt to mutilate the lovely white fringe with which hydractinia drapes the mouth of his moving cavern. And, as we have repeatedly proved, if he should chance to find a forlorn and shrunken parasitica, bereft by death of the messmate without whom she cares not to live, he will lie for hours together, with the shoulder of his whelk-shell pressed against the brown shapeless mass of widowed life, sometimes gently touching the desolate form with his friendly claws, until the parasitica slowly moves from its now useless attachment, and, in more senses than one, consents to form a new attachment, still purely platonic. It may be said, Is not all this a contribution to Mr. Romanes' theory of the development of intelligence in animals? If Mr. Romanes chooses to use it for his special purpose, we cannot, and would not if we could, hinder him. The whole world of natural fact lies open to all comers. We necessarily help one another. They in the school across the way borrow from us, and we, of the old school, borrow from them. This article, though mainly the fruit of communion with Nature, could scarcely have been written but for the work of men, some of whose views it seeks to modify. All who love Truth desire earnestly that she should be viewed on all sides and in the fullest light. And, despite all the mischief wrought by narrowness and one-sidedness in both schools, Truth is slowly rising to the pure silent heights where, "beyond these voices," she can be seen in her larger and fairer proportions; whilst

Faith, shaken by many a storm, after each "disturbance" has swept past, has but struck its roots more deeply into the rock-clefts of conviction, and spread out its ramifying rootlets in the soil of reverence and affection. And is not this result due, in large measure, to the fact that men are being led, by influences which no man can fully fathom, to hunger more and more for fact and accuracy, candour and courtesy? Surely, as the untilled waste lands of human intelligence are brought into cultivation, and as the seeds of all truth are more wisely and lovingly sown, there will be amongst us more and more "ground of an honest and good heart," on which, in due time, will wave a plentiful harvest. Believing this, we do not hesitate, in all brotherliness, to suggest to those who ignore Him whom we believe to be the mightiest Factor in the great problem, that, after all, taking it on its lowest ground, the old argument of "design" solves more difficulties and explains more harmonies than any other theory. Why should it be thought a thing incredible that God should have created life, and should now direct the laws which He has ordained? To reject the simple, natural, and perfectly obvious meaning of phenomena may gratify our pride of intellect and our inveterate habit of intensifying the difficulties and complexities of the duty we have to perform; but it is not a scientific method, nor is it ingenuous.

No one who has read Mr. Drummond's book can easily forget the effective use he makes of the life-history of the sacculina which infests the body of *Pagurus bernhardi*. Were we dealing with the purely moral aspects of this brilliant onslaught on parasitism, we should have unqualified satisfaction in attempting to drive home solemn warnings which modern semi-religious society so deeply needs. Nothing can be finer than the description of the "pampered parasite of the pew" whose "only spiritual exercise is the automatic one of imbibition, the clergyman being the faithful hermit-crab who is to be depended on every Sunday for at least a week's supply." And if the hermit and its parasite were simply used as an apposite illustration, apart from scientific treatment, no serious fault, perhaps, could be found with the method of the awful satire. Yet, even from this point of view, charity, if not

justice, might suggest that there was also another side to the tremendous problem which our scientific evangelist raises—a side indicated by the truer statement of the strictly physiological correlationship of these strange messmates. For, turning from the moral to the scientific, here also a doubt arises, not as to the accuracy of Mr. Drummond's facts, but as to the theory he constructs out of them. It may lay us open to a charge of scientific heresy to say so, but we gravely question the perfect reasonableness of the proposition which lies at the root of his impeachment against sacculina. He says, "The most certain clue to what Nature meant any animal to become is to be learnt from its embryology." Is it invariably so? And if not, may not the case in point be an exception to the rule? May there not also be other exceptions? And may not the exceptions necessitate important modifications of that portion of the Darwinian doctrine which deals with Degeneration? Mr. Drummond has studied his St. Paul and St. John to some purpose; but has he—has any one—grasped the fulness of biological truth in all its many-sided proportion, and in all its far-reaching consequences? Are there not many strange indications, as Darwin himself saw, that Life, on the whole, forgets the things behind, and reaches out to that which is before—its true goal, not in the past, but in the future? Of all embryonic life, including the lowliest and the most spiritually differentiated, is it not profoundly true that "it doth not yet appear what it shall be?" Are not all the passing phases of development but means to an end? The function which any creature is designed finally to fulfil may be in itself single, though far-reaching and complex in its results; but, in such a case, simplicity of structure and singleness of purpose are not, strictly speaking, "degradations," but "concurrent adaptations," and, in relation to the purpose they fulfil, though not in relation to their perished organization, "excellencies." But, be that as it may—and here Mr. Drummond, at least, will be at one with us—certain it is that HE, "by whom all things consist," made no blunder in the creating; and He makes no blunder in the government. "Very good" was stamped upon the fontal types of life, and "very good" radiates in matchless significance from every

changing aspect of developing species. We hesitate to accept Mr. Drummond's conclusions, because they appear to us degrading to Nature, and therefore to Nature's Lord; and because they lead away from that which seems to us a far greater and nobler interpretation of natural fact. In this, and in other respects, this last attempt to "reconcile science and revelation"—for such in effect it is, all disclaimers notwithstanding—is not less mischievous than former attempts. Paul never dreamt of embarking on a quest so erratic and perilous. He was content simply to believe that the appointed Heir of all things had already reconciled all things in Himself—*how* He will in due time make known. Truth is too great to need the bolstering of doubtful expedients. Some years ago the great Priory Church of St. John, in Chester, was believed to be bulging to its fall. Men who knew nothing of the daring and spiritual aspirations of Norman architects stript off the roof, removing, with a difficulty which astonished them, many feet of massive rock-like masonry, and crowning the mutilated temple with a roof which was but a paltry but-covering compared with the original—now, alas! no longer possible. Sir Gilbert Scott, coming to restore the Cathedral Church of St. Werburgh, saw in what had been done, the destruction of a piece of work almost unique in British architecture. Originally there was not a straight line anywhere in the Church. Like the Nature-temple all around, and like the purest Greek architecture, it was full of gentle graceful curves. The "degraded" walls of the mighty nave were meant to be suggestive of the "ship"—the "navis" which our ancestors, borrowing from the earliest Christians, conceived their Lord intended His Church to be—"a heaven-ward-sailing ship." We do not like to write harsh words about so good a man as Mr. Drummond. There is a noble ring about his book, in spite of its blunders, and a glowing enthusiasm of truth, which, in future years, and with matured study of Nature and grace, will do high service for God. But we cannot resist a haunting suspicion that he has missed the purpose of the Architect.

What, then, is the truth concerning this hermit-crab and its parasite? We cannot yet speak from actual observation,

and those who can so speak have only begun to ascertain the facts of the case. But a sufficient amount of evidence is forthcoming to warrant a demand for an arrest, if not a reversal, of judgment. The sacculina is allied to the crustaceans. Like all the members of its great family, it passes through at least two distinct changes before attaining its majority. First it is a free-swimming nauplius, with legs, eyes, digestive and other organs. Then it moults into the cypris form, still highly organized, but enclosed in a bivalved shell. Finally it attaches itself to the tail of a female crab, where the ova are always found. Peltogaster, a species almost peculiar to the hermit, possibly entirely so, is the particular parasite which will best serve our purpose. In books it appears to be confounded with sacculina, and probably is really the parasite described by Mr. Drummond. The two names mean much the same thing. Sacculina is "a little sack;" peltogaster "a shielded stomach." But "peltogaster" is a misnomer; for the creature in its final parasitical form has no stomach, alimentary canal, or mouth. It is a simple *sac*, from which all the legs and the eyes have passed away. It contains ova, and for head it has a tuft of roots (hence the generic name, rhizocephala—root-headed) which cling to the soft body of the hermit, and penetrate to its interior organs. "By means of its twining and theftuous roots it imbibes automatically its nourishment ready prepared from the body of the crab." Quite true. But why "theftuous" roots? Are they more theftuous than the mouth which sucks an orange or masticates salmon? "Yes," say you, "but a Scotchman works hard to suck and eat." True again. But who shall presume to say that peltogaster has not worked hard? Nay, what if it should turn out that this very act of sucking is really work—the Divinely appointed work, the one mission of its life, its *raison d'être*, for which all its previous stages of existence were preparing it, and in the interest of which, under the influence of an instinct simply astounding, it sacrifices all its glory, and is rewarded with a round of abuse, such as might have won for Mr. Drummond a front place on the earliest staff of the *Edinburgh Review*?

It cannot be too distinctly understood that parasitism is not an evil, a flaw, a crime, a blunder in Nature, but one among

many all-wise provisions by which the equilibrium of life and force is maintained. Without parasitism the world would quickly fall into indescribable and unendurable confusion. In one form or another it runs throughout Nature. Even a Scotchman—we deprecate offence, being of that ilk ourselves—is not wholly free from an analogous mark of "trans-gression." Let him once get into his nauplius or cypris or free-swimming condition, and he will fasten anywhere, except perhaps in the land of his birth; and "so far as the result to himself is concerned, the arrangement will be satisfactory enough."

And what may be the work which peltogaster does? There is reason to believe that the sucking does no injury to the crab itself. An infested crab continues to grow, and is, to all appearances as healthy, as is the ichneumoned caterpillar, which, though growing to its full-fed size, and assuming the pupa form, can never emerge into the reproductive moth. The parasite simply attacks the reproductive organs of the crab, and probably rarely, if ever, attaches itself to the male crab. Professor Semper declares that he has never yet heard of the hermit-crab, pagurus, being found infested with parasitic irri-pedia of the genus peltogaster, and at the same time carrying eggs on its hind legs.

Now consider how wise a provision, how merciful to the whole circle of messmates, including pagurus itself, and to the outer circle of life, is this "almost unparalleled example of degradation." The hermit-crab, by the very peculiarity of its commensalism, is in an enormously advantageous position in relation to the great function of reproduction. Not only its possession of a house of defence, but the additional circumvallation of life with which its instinctive encouragement of so many useful friends invests it, renders it a successful rearer, as well as a fruitful mother, of children. Who can get at its nursery? Until they are old enough to swim forth in all the swiftness and hardness of their zoæa form, its ova are all but absolutely safe from attack. If pagurian life were not balanced, it would swarm beyond the power of the whelk, the neritina and the natica to supply it with homes, and slaughter and disaster, more than are at all necessary, would spread in widening circles through the world of waters. It is the pelto-

gaster who supplies the check-spring, and does it, as now seems probable, in a way which reduces the injury to its host, and to all her messmates, to a minimum. Without a doubt its peculiar personal instinct is a desire to provide nourishment for its own young. But upon this instinct is engrafted another, which moves it to select the female crab (usually, if not exclusively, the female) and to limit its destructive operations to the reproductive organs. Who—our pen instinctively refuses to write "what"—*Who* teaches this lowly creature thus to select and thus to limit the sphere of its operations? Nitrogenic juice, lime, carbon, all the chemical food it requires for its nursery, it could get in abundance in a thousand quarters. Who has shaped its end through all the rough-hewing changes of its eventful career? who wrote in its tiny members a law of self-abnegation? who gave to it an impulse which, environment being favourable, was destined to bring it where a painful but necessary work had to be done? This is Mr. Drummond's answer to these surely solemn and most momentous questions:—"The hereditary taint of parasitism is in its blood, and it proceeds to adapt itself to the pauper habits of its race. . . . . Strangely metamorphosed, the sacculina sets out in search of a suitable host, and in an evil hour, by that fate" (how the dreary fatalism of the theological training crops out!) "which is always ready to accommodate the transgressor, is thrown into the company of the hermit-crab." Is this a reverent or reasonable mode of dealing with a question which stands on the threshold of one of Nature's sublimest temples of mystery? For our own part we prefer the simple solution which satisfied the ancient patriarch in the dawn of natural theology—

> "Who knoweth not in all these,
> That the hand of the Lord hath wrought this?
> In whose hand is the soul of every living thing."

Art. IV.—THE HISTORY OF PREACHING.

1. *Geschichte der Predigt.* (*History of Preaching.*) Von Richard Rothe. Bremen: Heinsius.
2. *Geschichte der Predigt.* Von A. Nebe. 3 vols. Wiesbaden: Niedner.

THE pulpit is the creation of Christianity. No other religion has used public oral instruction as its principal means of outward extension and inward edification, or incorporated such instruction in its public services. In this as in other things Mohammedanism has been partially a borrower. How vast the new field thus opened to eloquence, which was formerly restricted to the arena of politics and law, it is needless to say. The seed-germ of the pulpit was the reading and exposition of the law in the Jewish synagogue (Luke iv. 16); another striking proof of the fact that the synagogue, not the temple, is the model of the Christian Church. While the synagogue had its appointed order and officers, it also preserved freedom of teaching, as the scene in Nazareth shows. This freedom was long cherished in the Christian Church (see 1 Cor. xiv.), and only vanished gradually. In the course of a few centuries it became quite extinct, and remained so, to the great loss of Christianity, through the Middle Ages. It was revived at the Reformation, and must characterize every community that would be true to primitive Christianity. There are other interesting examples of this freedom. The most ancient term for a Christian discourse was *homily* (Acts xx. 11), which denotes a simple, familiar address to a mixed assembly, almost in the tone of conversation. The substitution of the Latin term *sermo* marks the transition to a more formal style, though even this term had perhaps at first a more familiar sound than it has now. So in early times it was common for preachers as well as hearers to sit.

The character of the pulpit in a particular age depends greatly on the general state of knowledge and literature in the

age, and still more on the state of religious life in the Church. Culture and barbarism, spiritual vigour and spiritual torpor, are faithfully reflected in the pulpit. No doubt, preaching has often been the means of religious awakening; but, on the other hand, the influence of the age and of the Church's spiritual life on preaching is undoubted. This must be borne in mind in the estimate we form of the preaching of the past. To apply modern canons of taste to the works of former ages would be unjust as well as uncharitable. Excellence of style consists mainly in its adaptation to the kind of work to be done, and we have learnt to exercise great latitude in this respect. At the same time, this judgment of charity is far less applicable to the matter than the style of preaching. We cannot forget that, while no canon of style is set up in the New Testament, there is a canon of truth. Former ages were surely in as good circumstances for knowing the real teaching of Christ and the Apostles as ourselves. However this may be, nothing can blind us to the fearful change for the worse that soon came over the substance of Christian teaching. The more we know of patristic and mediæval days, the more we are impressed by the extent to which corruption penetrated Christian doctrine and morals alike. We propose briefly to review the long story of the pulpit in ancient, mediæval, and modern days.

We may mention at once the two main defects which clung to the pulpit during the first two periods. One was the overwhelming preponderance given to the allegorical interpretation of Scripture over the literal and historical. If the latter was not utterly ignored, it played a very subordinate part. The allegorical, tropological, anagogical senses were well-nigh all in all. It is plain that on such a system almost anything might be made of Scripture. The sense for the historical side of revelation is all but exclusively a modern phenomenon. It is the fruit of the revival of learning and of the Reformation. The other fault is the terrible rapidity with which material, heathenish ideas became universal in the Church. The glory of the ascetic life, the mediation of the Virgin and saints, the merit of almsgiving, became the themes of panegyric, which grows in extravagance as time goes on. When the greatest

preachers are not above criticism in these two respects, the lengths to which ordinary preachers and writers go may be left to imagination.

Origen (+254) heads the great roll of Christian preachers, as he heads the roll of exegetes and scholars. In illustration of the freedom just mentioned, it may be noted that he preached on a bishop's invitation before he was ordained as presbyter. It must also be said that he was constantly quoted in after days as the patron of the allegorical school of interpretation. Still, with many faults, his general writings and his numerous homilies contain the first rudiments of homiletic rules and the first examples of their application. His familiarity with Scripture, and his skill in making it self-explanatory, are extraordinary. His aim is to bring out of Scripture both food for mind and heart and direction for the life. He combined real instruction with thorough popularity. His writings furnished matter and models to the pulpit for many centuries.

It is remarkable that in the Eastern Church preaching leaped to its highest point at a bound, and fell as rapidly. Basil, the two Gregories, and Chrysostom (fourth century) are among the greatest preachers of all ages, and after them the Eastern Church has scarcely a name worthy of mention. In their days it was not thought indecorous for congregations to express approval in all the ways known now to public meetings. The greater preachers discouraged the practice. Whether the minor stars encouraged it we will not undertake to say. The diffuseness and rhetorical extravagance even of these brightest ornaments of the Eastern pulpit offend us; but we remember the canon of charity, and forbear. Basil and his friend Gregory Nazianzum were natural orators, and received a thorough training in the schools at Athens. They were also alike in their gifts of poetical illustration, and in their open eye for the glories of Nature. Basil's Homilies on the Six Days of Creation exhibit these powers in a remarkable degree, anticipating the argument from design. These homilies were largely copied and imitated. Gregory's sermons on the Trinity, the great subject of controversy of the age, dealt not merely with its theoretical aspects, but with

its practical consequences to Christian life and worship, and are an excellent model of doctrinal preaching. Gregory of Nyssa, Basil's brother, was inferior as a preacher. If we were asked to name the greatest popular preacher of all time, we should unhesitatingly name Chrysostom (the "Golden Mouth"). Not a great polemic or theologian or thinker, not perhaps the greatest of all preachers absolutely, he combined in a higher degree than any one else the qualities which go to make the popular preacher in the best sense. We know no other pulpit orator who has possessed such absolute power over an audience, and who has uniformly exercised his power in so noble a spirit and to such noble ends. We know of no drawback to his greatness and nobility, save, perhaps, the imprudence with which he furnished occasion to the malignity of a wicked empress, when he exclaimed in public, "The daughter of Herodias dances again!" His mighty powers were used to lash wickedness in high places and low. To his infinite honour, bad politicians and bad priests and monks were his bitter enemies, and wrought his ruin. The tragedy of Herod, Herodias, and the Baptist was played over again in Chrysostom's exile. Of all the early preachers he is the freest from allegorical extravagance. He belonged to the Antiochian school, which held to the literal sense of Scripture. His sermons and homilies display wonderful common sense, as well as boundless resources of tact and sympathy. He is not free from the repetition which is the danger of extempore discourse, but the repetition was the result of his determination to bring what he said home to the hearts of his hearers.

Chrysostom had no successor in the Eastern Church. Without denying that a few respectable names occur afterwards, we have searched in vain all through the Middle Ages for one really great name. The decline of the pulpit followed the decline of spiritual life and energy in Eastern Christianity. The exaltation of the monkish life as the ideal Christian life, the preaching of the Virgin and saints instead of the preaching of God and Christ, belief in the virtue of relics and the cross, became the universal rule. Let one moderate example from Andrew of Crete (seventh century), a preacher not destitute of talent, suffice. He calls the Virgin "the diadem of beauty,

the queen of our race, Christ's holy temple, the rod of Aaron, the root of Jesse, the sceptre of David, the mediator of the law and grace, the seal of the Old and New Testament, the looked-for salvation of the heathen, the common refuge of all Christians, the first restoration of the Fall," &c. Henceforth our attention must be confined to the Western Church. Here, indeed, the same evils ran riot. Still, there was a vigour of spiritual life and missionary ardour, which superstitious excesses did not succeed in overpowering.

The two greatest preachers of the early Western Church are Ambrose (340–397) and Augustine (354–430). Ambrose reminds us of the late Bishop Wilberforce. He was great, not in any specific line, but in general versatility, broad sympathies, and commanding personal influence. An assiduous student of Origen, Basil and Athanasius, he transferred their teaching to the West. His *Hexæmeron*, in six books, is a reproduction of Basil's work already mentioned. And along with the ideas of the Eastern preachers he reproduced their allegorizing tendencies. His style has all the faults and all the merits of the born rhetorician, an affluent but untrained and ill-regulated fancy. Augustine, his spiritual child, praises the *suavitas* of his preaching. What shall we say of Augustine? His greatness lay elsewhere. Still, his imperial genius made smallness in anything impossible to him. The power of his numerous extant sermons or homilies lies in the flashes, the intuitions of great truths scattered through them. With a swiftness amounting to divination, instead of plodding through detail, he seizes upon the central truth of a book or passage, and sets it forth in luminous outlines. Amid masses of allegorical rubbish we come upon treasures of thought which more than repay the labour of digging. He combines, in a wonderful manner, speculative with practical genius. He is strong, imposing, massive in the highest degree—an intellectual and spiritual giant. The preachers and expositors of the Middle Ages lived upon his brains. The homiletic manual contained in his *De Doctrina Christiana* (book iv.) was substantially reproduced again and again, as, *e.g.*, by Rhabanus Maurus in the ninth century.

The greatest names of the next two centuries are Leo the

Great (+461), Cæsarius of Arles (+542), and Gregory the Great (+604). If they borrowed from their greater predecessors, they borrowed in royal style. They are related to common plagiarists as knightly marauders to common thieves. Leo's best sermons are those which deal with the dogmatic questions discussed in his days. His clear judgment and antithetic style undoubtedly did good service in putting the last touches to the definitions of Christology. His Latin still retains something of the purity of old times. Cæsarius is one of the most attractive figures of his time. Standing at the helm of the Gallic Church in the troublous days of the barbarian invasions, he steered its course with consummate skill, using his great influence both with kings and peoples for the best ends. His sermons have an evangelical ring which is only too rare in those days. He insists that fasting, vigils, alms, will avail nothing without the love of a new heart. Love of God is the spring of all good works, and it is the sweetest; whoever has it has salvation. He warns against all trust in the sign of the cross as a charm, as well as against the hypocritical repentance of a deathbed. He urges his hearers to read the Scriptures, or, if they cannot read, to have them read. His style, too, is as simple as his tone is practical. Gregory's "Moralia in Jobum," filling above a thousand folio pages, anticipated our own Caryl, and is much of the same character. This work is an inexhaustible mine of rules and reflections bearing on practical life. Still, despite his intolerable prolixity and childish expositions, despite his admiration for the ascetic life, which he preached into favour in the West, one is pleased to hear that Gregory delighted in preaching, and that like a true pastor he stood by his flock in days of fearful pestilence. In indefatigable toil he reminds us of Baxter. The sermons of the English Bede owe much to Gregory. Preachers of less distinction but considerable power were Columban and Eligius of Noyon, of whom mention must suffice.

We turn now to the Middle Ages. During the first part of this period preaching sank to a low point, the result of a corresponding intellectual and moral decline. Charlemagne tried to meet the case by the publication of a "Homilarium," a collection of homilies taken from Ambrose, Augustine, Hilary,

Leo, Bede. About this time also the lectionary was definitely fixed, the idea being, that as the whole of Scripture was too much for preachers to master they should confine their study to the selected portions. The qualifications required of priests were fixed at a very low point, and related chiefly to the right performance of mechanical functions and duties. Superstitious corruptions rose to as great a height in the West as in the East. According to Fulbert of Chartres (eleventh century) Christ is an object of terror to Christians; his mother, on the other hand, is the fount of mercy and grace. Peter Damian's language on the same subject, in his sermons on the Annunciation and Assumption, is still wilder, not to say grossly irreverent. The latter half of this period witnessed a great improvement in the form of preaching, due to the growth of scholasticism, which, however questionable in some respects, was at least a manifestation of mental power. If the doctrines preached were too often unevangelical in the highest degree, they were preached with more logical connection and intellectual force. Stirred up by the success of the Waldenses and other sects in preaching, the Dominicans arose as a preaching Order, and the Franciscans followed suit. They gave themselves to itinerant preaching in a popular style, for the purpose of counteracting the work of the "heretics," and they largely succeeded.

The result of this movement was an immense outburst of popular preaching, good and bad. The latter we will pass by, only remarking, for the comfort of those who are shocked by some modern excesses of the pulpit, that the worst outrages upon taste and reverence in our days might be more than rivalled from the Middle Ages. The lengths to which burlesque was carried by the Italian Dominican, Barletta, and the French Franciscans, Maillard and Menot, in the fifteenth century, set all rules of decorum and decency at defiance. And yet these preachers were in universal favour. It passed into a proverb in Italy, *Qui nescit Barlettare, nescit prædicare.*

We prefer to notice popular preachers of a better stamp. One would like to know more of Foulques, a priest at Neuilly, near Paris, in the twelfth century, who, we are told, though destitute of culture, preached repentance over a great part of France with burning eloquence and immense effect. But none

of his sermons have come down to us. Perhaps if they had come down to us, we should have found that, like Whitefield's, their spirit evaporated on paper. However, we know something of Berthold, Vincent Ferrer, Gerhard Groot, Geiler, to say nothing of Wiclif and his helpers, Huss, Jerome, and Savonarola. Berthold, a Franciscan of the thirteenth century, was the instrument of a true religious revival in Germany. Although standing on the ground of the Romish Church, and showing no disposition to deviate from it, he preached its doctrines in a moderate form. Thus he preaches earnestly against pilgrimages and crusades, as well as against indulgences. He prefers to insist rather on following the examples of the saints than on seeking their intercession. His favourite topics are the practical virtues and duties of life. He preached in fields to immense crowds of people. It is the form, however, rather than the matter of his preaching that is remarkable. He laid himself out to gain the popular ear, dealing largely in parable, dialogue, and illustration, surprising by sudden turns, introducing a spice of humour, while never descending to the comic. Berthold, in short, is another proof of the possibility of making religion as interesting and popular with the masses as politics or science by perfectly legitimate means. Ferrer, a Dominican of the fourteenth century, of a more fanatical bent than Berthold, was not unlike him in his mode of preaching, and was the means of a similar awakening in Spain and Italy. The last twenty years of his life were spent in constant preaching journeys in these countries with striking results. Enemies were reconciled, hardened sinners publicly confessed their sins and vowed amendment, Jews and Mohammedans were converted in great numbers. On his incessant journeyings he preached every day, often twice or thrice a day. He was a predestined preacher, his chief amusement in childhood taking this form. He had a fine voice, exhaustless fluency, a clear, logical, picturesque style. Like many of his class, he was not without learning, often making apt quotations from the Fathers. His sermons fill four folios, which have often been reprinted. Gerhard Groot, the founder of "The Brothers of the Common Life" in the fourteenth century, laboured in a similar way in the Netherlands. Giving up ecclesiastical office and property,

he went through town and village, poorly clad, calling the people to repentance. He spoke from the heart and in the vernacular, often preaching twice or thrice a day. At the instigation of the priests and monks the bishop at last reduced him to silence. It was in one of the schools of his foundation that Thomas à Kempis was trained. Geiler enjoyed immense popularity in the fifteenth century as preacher at the Strasburg Cathedral, but it was popularity of a kind with which we are little able to sympathize. He preached in fables, anecdotes, witticisms, taking up any illustration that came to hand and working it to death. Zaccheus' tree had twenty-three branches, and each branch represents one of the means by which we are to climb to eternal life. Ants, lions, ships, mountains, markets, swords, are similarly allegorized. Even indecency is not wanting. The taste both of preachers and hearers can only be described as hideous, even for their days.

The scholastic preachers proper, represented by Bernard of Siena, Leonhard of Utino, Meffreth, Bernard of Busti (fifteenth century), and greater names, and such as Albert the Great (thirteenth), the Victors (twelfth), Abelard (twelfth), need not detain us. They are all after one pattern. Great learning, abundance of logic, boundless superstition, length, and dryness, are their common features. The following is an apostrophe to the Virgin by Bernard of Busti: "O Redemptress of the world, Changer of the course of Nature, Restorer of a lost world, Renewer of human nature, Mediatrix between God and men, Foundation of our faith, Ladder by which we ascend to heaven, Queen and Empress of the whole universe, preserve us from evil spirits!" Preachers like St. Bernard, Huss, Wiclif, Savonarola, we pass by as well known. But some representatives of the Mystic school deserve notice, such as Bonaventura, Eckhart, Suso, Tauler, Gerson. The sermons of Bonaventura (thirteenth century), despite their scholastic manner and superstitious extravagances, show real sympathy with inward religion. He has a hearty love of Scripture and makes diligent use of it, although in the usual allegorical way. Of the other mystics, Tauler (fourteenth century), whose sermons have appeared in an English dress, is by far the most

intelligible. By renouncing the exercise of his own reason and will, man is to rise to unity with God. Passive submission is the way to perfection. Like all mystics, Tauler depreciates knowledge and outward effort, even knowledge of the letter of Scripture. Inward calm, emptiness, detachment, are the chief things. His style is simple, and yet enriched with apt figures. He has many quotations from the Fathers, but always in the right place. Tauler may still be read with profit. It will do us all good to hear the old mystic insist on the heart being emptied of worldly desire before God can come in. "Emptiness is the first and chief condition for receiving the Holy Spirit; for the more emptied man is, the more receptive he is. Before filling a glass with wine, the water in it must go out. Before God comes in, the creature must go out." The image of Christ kept before us perpetually will kindle love to him. He is never weary of illustrating the instinctive hunger of man's soul for God. As fire tends upward, as water flows back to its source, so the soul never rests till it finds its way back to God. "A single flight of the soul to the wounds of our Lord is worth more to God than all the bells and organs and vestments."

The modern era of preaching begins with the Reformation. The Reformation was essentially a return to God's Word. God's Word was the sole instrument and trust of the Reformation. That Word had free course to an extent never seen before. Luther, Calvin, Melancthon, and the other Reformers were pre-eminently preachers. The form of preaching also underwent an immense change. We are in a new world: scholasticism with its hair-splittings, and superstition with its externalism, are behind us; the owls and bats of superstition are fleeing in terror before the dawn; the air is pure, and the heavens bright above us. This latter change is due in great measure to the revival of learning, and the entirely new direction given to inquiry and thought. The reign of *à priori* speculation is over; faith is henceforth to be grounded on evidence and historic fact. Even the Romish Church has felt the change that has come over the world. Its preachers have known to some extent how to march with the times.

We proceed to notice the names marking the different stages of preaching in continental Protestantism. J. Arndt (1555–1621) led preaching out of the groove of almost scholastic dogmatism into which it fell after Luther's days, into the more fruitful paths of spiritual teaching and practical edification. His sermons contain a sober mysticism, and breathe a mild, humble, loving spirit. He dwells on practical truths, and on faith working by love. He is best known by his work on "True Christianity," once a most popular book of practical religion. Spener (1635–1705) gave a still more powerful impulse in the same direction. His great influence was owing, not to gifts of style, which he had not, but to the contrast which his practical expository teaching presented to the intellectual orthodoxy which formed the staple of so much other preaching. Knowledge, he said, is only valuable as it leads to practice. Justification must not be separated from a new nature and holy life. Love of God and our neighbour is the spring of Christian morality. Spener has often been called the German Wesley. That he did not effect the reformation in Germany which Wesley did in England, was due to the timidity which prevented him from acting independently of the Church authorities of the day. His bravery ended in words. We hear a great deal in some quarters about the irregularity and insubordination of Wesley's proceedings. The simple answer is, that without such irregularity or independence the good which the same critics profess to applaud could not have been done. If Wesley had waited for the consent and approval of Church authorities, where would the revival of the last century, with its manifold effects, have been? Had there been less slavish deference to and dependence on civil and ecclesiastical dignities in Spener and other German preachers, the religious history of modern Germany would have been different, blessedly different, from what it has been. Mosheim (+1755), the Church historian and a universal scholar, exerted great influence on the pulpit of his day by renewing its connection with eloquence and culture. He maintained that pulpit eloquence only differed from other kinds in its subject and purpose. Other things being equal, the most eloquent and most cultured preacher will be the most

effective. He also drew attention to the important distinction between a written and a spoken style, the latter allowing and requiring greater freedom and variety than the former. Tillotson was a favourite with Mosheim. His own sermons remind us of Blair's, but they have far more force and warmth. Mosheim's principles are well illustrated in Lavater (+1800), whose sermons are polished, thoughtful, and impressive in the highest degree. Reinhard (+1812), Müslin, Theremin (+1846), Dräseke (+1849), deserve more extended notice than we can give them. All these set themselves to recommend positive Christianity to cultured hearers, and in different ways they are classical examples of success in this art. Scarcely less eminent names are those of Rieger, Albertini, Menken, through whom the succession goes on to Schleiermacher. In the Reformed Church we should have to notice Daillé, Claude, Saurin, if space permitted.

The modern Roman Catholic pulpit reached its highest point in France at the close of the seventeenth and beginning of the eighteenth century. That was the Augustan age of French literature, and Fléchier, Bossuet, Bourdaloue, Fénelon, and Massillon are to be added to its classics. In point of form they are typically French orators. As studies in style they will always be full of interest and value to others than Frenchmen. Bossuet, despite his tendency to florid grandiloquence, has an eagle sweep and grandeur, Bourdaloue, "the king of preachers and preacher for kings," charms by his clearness and serenity; Fénelon is a mystic without a tinge of obscurity; Massillon impresses by his fearless honesty, knowledge of human nature, and power of description. Still, there is great truth in Rothe's criticism that the substance of the teaching of these great French pulpit orators was Deism, ornamented with Christian phrases and qualified by insistence on the powers and functions of the Catholic Church. One also wonders at the apparently slight effect of their wonderful efforts. The Grand Monarch might say to Massillon, "When I hear other great preachers, I am satisfied with them; but when I hear you, I am dissatisfied with myself;" but we fail to find the evidences of such dissatisfaction in his public policy or private life. His court still continued to imitate the court

of the Cæsars, not only in its ambition and luxury, but also in its unblushing immorality.

The English pulpit has no reason to fear comparison with that of any age and country. Taylor, South, Andrewes, Donne, Barrow, Farindon, Reynolds, Tillotson, Manton, Baxter, Howe, Wesley—to say nothing of preachers like Beveridge, Wilson, Stillingfleet, Sherlock, S. Clarke, Doddridge, and more recent names—are worthy to rank beside English poets, historians, and philosophers. They have helped to make the English language. Their works are a library of divinity in themselves. They have absorbed the wisdom of the previous Christian centuries, and reproduced it in noble English. A minister who should make a study both of the style and contents of their sermons would act wisely. Taylor, with his exuberance of imagination, seems like a Basil or Gregory Nazianzum in English dress. South's terse, sinewy style exactly fits his strong, manly thought. Barrow is full of noble, strenuous energy. Farindon cannot be excelled for richness of matter, nor Tillotson for clearness and simplicity of style, nor Baxter for burning earnestness, nor Howe for comprehensiveness of treatment. Some of the judgments on English preachers expressed by Rothe, whose work we have placed at the head of this article, are exceedingly amusing. The great masters are passed by with meagre notice, while Joseph Fawcett receives long and unstinted praise! Wesley and Whitefield, he says, are harsh and narrow in their views; they were no doubt powerful preachers, but their power is often violence; their aim was to work on the imagination of their hearers by terrible descriptions—"a violent delivery and tempestuous action." It is certain that Rothe could not have read Wesley's sermons or his "Earnest Appeal to Men of Reason and Religion." The association of "a violent delivery and tempestuous action" with John Wesley, is ludicrous. So much for a German's knowledge of English life.

The result of this brief review of the Christian pulpit may well be to inspire Christians, and especially Christian preachers, with pride and confidence. A similar review of more recent, not to speak of living, preachers would be the best reply to the complaints heard here and there of the decay of the pulpit.

The decay of an institution that has been the chief organ in the maintenance and extension of Christianity, and that was ordained for this very purpose (Mark xvi. 15; 1 Cor. i. 17, 21), could only follow from the decay of Christianity itself. Those who make the complaint mistake change of form for vital decline. On the same principle every change in forms of government would indicate decay. No institution has passed through greater variety of phase than the Christian pulpit; but this is merely an evidence of its power to adapt itself to different kinds of need and different forms and stages of culture. The inspiration of preaching has always been drawn from the grandeur of the truths which Christianity reveals, and till these truths are disproved—*i.e.*, till Rationalism and Atheism have established their positions—this spring of inspiration will remain. "I believed, therefore have I spoken," is the rationale of preaching. Faith, conviction, experience, joined with the gifts and enthusiasm of the speaker, have made preaching; and preaching has made Missions, Revivals, Reformations, Churches—in short has made Christendom.

Art. V.—ON SOME MISSING LINKS IN NATURE.

MUCH has now and again been said of "the missing link," by persons who meant thereby to refer to some hypothetical animal form intermediate between man and the existing anthropoid apes. But there are many other "missing links," and it is only to certain of these other missing links that we here intend to refer. And in the first place we may refer to those which exist, not at the summit, as it were, but at the base of the great group of apes. Apes are divisible into two great families, one of which is exclusively an inhabitant of the Old World, and the other as exclusively an inhabitant of the New. It is true that in one or two of the West Indian islands Old World monkeys are to be found. But these are the descendants of individuals which were introduced by man since the time of Columbus and have run wild.

Naturally, the West Indies contain no monkeys at all. They are indeed found in Trinidad, but Trinidad is not one of the Antilles, but is merely a fragment of the South American continent which has become detached. These two families of apes are very sharply marked off the one from the other by certain anatomical differences; bnt these differences are, for the most part, so little obvious, that every species of either family is plainly and unmistakably an ape, even to the uninstructed observer.

On the theory of evolution, apes have arisen by differentiation from pre-existing beasts which were not apes, and, on the Darwinian theory of evolution, they have so arisen by an incalculable number of minute steps in an indefinitely prolonged time. We might, then, expect to find amongst the number of fossil remains, some fragments of these links between apes and non-apes. Yet, up to the present time, no unmistakable evidence of the kind is forthcoming. We do not say this in any spirit of opposition to the theory of evolution, which we cordially accept; but it appears to us to tell against the belief that evolution always and in all cases has proceeded only by minute steps. Of the dozen other orders into which the class of beasts is divided, there is not one which shows any true affinity to apes by any of its living or fossil forms. The absence of links between them and apes, is indeed far greater than that between apes and man; for, *anatomically* considered, men and apes may be metaphorically said to stand together on an island separated by an unfathomable gulf from every other organic form.

Another very noteworthy "missing link" is that which is wanting between bats and all animals which are not bats. In these animals the fingers are enormously elongated and webbed, to form the wing, and the whole fore-limb is admirably suited for its one purpose, but for that one purpose only. It is a very inefficient instrument for anything but flight. Obviously therefore even a half-formed wing, which while not at all or scarcely available for flight, should be yet available for nothing else, could not survive in the struggle for existence. There is one anomalous animal, the *Galeopithecus*, which has webbed fingers with a fold of skin on each side of

the body, and another between the legs and tail. These membranous folds enable it to take long jumps but not to fly. But the fore-paws of this creature have strong claws and can grasp and otherwise act as do the fore-paws of many other beasts. The organization therefore in no way helps us to understand the mode of origin of the bats, which, when they first appear upon the geological scene, appear as true and perfect bats, and not as creatures on the road to become bats. Here again it seems difficult to understand how a series of *minute* changes could ever have brought about the organization which is before our eyes to-day. An analogous difficulty exists with respect to those extinct reptiles, the Pterodactyles, which flew and flitted by means of wing membranes similar to that of the bats, save that it was supported but by one elongated finger instead of by four. These creatures have left their remains in the secondary rocks from the lower lias to the middle chalk; but they begin as they end—true and perfect pterodactyles. An analogous difficulty exists indeed with all flying animals, but as regards birds it has been suggested that they rose out of the water, a paddle such as that possessed by the turtle, being capable by modification to serve as an organ of flight! By "modification" indeed, but by what modification? Either by expansion into a thin membrane as in the bat, or by a growth of long feathers as in the bird. But how could such long feathers be developed by *minute* modifications? It is true that in the penguins we have fore-limbs not so very unlike those of the turtle, but clothed with short, almost scale-like, feathers. But then penguins cannot fly except under water, when their limb-action is like that of wings in air. A gradual elongation of their fore-limb feathers would be inconvenient in water, and, while still short, utterly useless in the air. Besides this, penguins are not considered by any biologists as primitive birds, but as specially modified birds—not as birds "in the making," but rather in a sense as birds in the *un*making—seeing that the wing is a degraded structure of the bird type.

The origin of birds is now supposed by most biologists to have taken place by a modification of reptilian forms towards that we now see in the Ostrich, Rhea, Emeu, Cassowary, and

Apteryx, and which existed in those gigantic birds, the various forms of *Dinornis*, which once lorded it over all other creatures in New Zealand, till the Maoris came and exterminated them.

In the days of the first Reform Bill the remains of a very ancient inhabitant of a borough in Schedule A, was disinterred by Dr. Mantell, and named by him *Iguanodon*. This large reptilian form, an attempted restoration of which may be seen at the Crystal Palace, proved to be the forerunner of a whole group of reptilian fossil forms, afterwards discovered and now known as the *Dinorauria*. Little suspicion was entertained in those days that the monster who dragged his great scaly tail along the Weald of Kent, could put in any claim to be a precursor of the swallow or the humming-bird. By degrees, however, sagacious anatomists detected first one and then another unobtrusive bird character in fossil Dinoraurs, and though the real genetic affinity of these animals and birds is still "non-proven," yet a number of "missing links" between them have now been found and a very respectable probability of their genetic relationship established. Recently the Iguanodon has revealed himself in his entirety. Dr. Mantell found many bones, but no skull. Other geologists had happy finds in various fields here and on the Continent, but still no cranium turned up. The Iguanodon did in fact, what is fabled of his reputed descendant the ostrich, long persist in hiding his head; but at last even this is forthcoming, and now a visitor to the Royal Museum at Brussels may have the pleasure of seeing an entire skeleton of this wonderful animal set up erect and complete from snout to tip of tail.

We have spoken of a suggested possibility that birds came out of the water, but we have yet to speak of certain terrestrial beasts (or mammals) that have certainly gone into it, and this without leaving relics behind them of their antecedent condition. Otters, sea-bears and seals, are in different degrees aquatic, but they are also more or less land animals. It is not of them we would now speak, but of two very different groups of animals which are absolutely and entirely aquatic and mainly marine. One of these groups is that of the whales and porpoises, and the other that which now numbers only

the Dugong and the Manatee, a living specimen of which latter species was exhibited a few years ago at the Westminster Aquarium.

The whales and porpoises together form a great order of animals known as the order *Cetacea*, all the members of which are most admirably adapted for an exclusively aquatic life. Nevertheless, the details of their anatomy (rudiments of hind-limbs, &c.) conclusively prove that they are the descendants of beasts which were quadrupeds fitted to live upon the earth's surface. But although the fossil remains of countless Cetacea have been entombed, yet the transitional forms are still amongst the "missing links" of Nature. This is the more surprising because such intermediate forms might be supposed to have been more easily capable of living and holding their own in the vital struggle, than intermediate forms between bats and non-bats could be supposed to have sustained their existence. But the same phenomenon which thus shows itself with respect to the remains of Cetacean animals preserved in tertiary strata, also shows itself with respect to those great marine reptiles the *Ichthyosauria* and *Plesiosauria*, the relics of which lie entombed in the secondary rocks. Their relics are abundant, but forms which might plainly show us the course of their gradual evolution are also "missing links," and in both cases the absence of these "links" seems to militate against the conception of the universal origin of new species by "minute" variations. The answer always given to this objection consists in the assertion of the fragmentary nature of the geological record—the rarely existing conditions necessary for the preservation of fossil remains at all, and the small parts of the earth's surface which have been examined geologically in an exhaustive manner. There is much force in the answer, as is shown by the fact that every now and then the fossil remains of some creature are found in rocks immensely anterior to the period when such creature was previously supposed to have first existed. Such has been notoriously the case with the scorpion, once supposed to have been at least but a tertiary animal, but now known to have been a witness of the accumulation of even our Silurian deposits. Again, the little efts, or newts, of our ponds were till quite lately taken to be

(as frogs and toads are still supposed to be) not older at least than the period intervening between the deposition of the Eocene strata and the deposition of the chalk. But now we know that their first cousins were in full force at that immensely distant period when the Permian formation of the primary, or palæozoic, rocks were in process of deposition. Nevertheless, while allowing all due weight to the argument to be derived from the fragmentary nature of geological evidences as to past life in general, we must deny that it has any force in certain cases, and just such a case is afforded by the fossilization of the remains of Cetaceans and of the great marine reptiles last referred to. It is difficult to suppose, had Cetaceans existed simultaneously with such reptiles, that remains of both would not have been found entombed in the same rocks. The argument is for us conclusive, both that the marine reptiles did not survive in tertiary times, and that Cetacean mammals did not exist in the secondary period. But if this reasoning is just, it no less appears to follow that transitional species now already extinct, when each of these fully developed forms of life began to be preserved for us: must have been immensely less numerous as individuals, must have lived but for a comparatively short period, while the process of evolution could hardly have been brought about by minute variations exclusively.

Let us now consider the second group of entirely aquatic beasts represented by the existing dugong and manatee, and by a third kind which existed till very recently, the *Rhytina*. In 1740 a Russian exploring expedition under Behring (after whom Behring's Straits were named) visited Kamskatka and wintered there, the celebrated naturalist Steller accompanying the expedition. The following year Behring and Steller, after a short visit to the American coast, were wrecked on a little island (since called Behring's Island) near the coast of Kamskatka. There Steller discovered the Rhytina existing in enormous multitudes. Its flesh was, unfortunately for science, found to be remarkably good, and the explorers recommended its use to traders. This fatal advice was only too fully complied with, for in no more than twenty-seven years from that date not one single living Rhytina remained: the last survivor was killed

in 1768. The creature was excessively stupid and dull, both as to sight and hearing, and frequented the shore, where it fed voraciously on sea-weed, and had often to come to the surface to breathe. These circumstances alone made it an easy prey, but its affections were still more fatal to it; for if a male, or female, was harpooned, its mate remained with it making stupid, fruitless efforts to relieve it, till the pursuers harpooned it also. Relics of the animal are exceedingly rare, but there is an incomplete skeleton in our Natural History Museum at South Kensington. Now these three animals—the Dugong, Manatee and Rhytina, were by earlier naturalists classed in one group with the whales and porpoises, being distinguished from the latter as the "Herbivorous Cetacea." Further knowledge of their anatomy has, however, abundantly demonstrated that there is no near affinity between the two groups, and the allies of the Dugong are now known as *Sirenia*. The Sirenia are also plainly the descendants of animals which were quadrupeds and inhabited the land. Thus a completely aquatic habit and correspondingly modified structure have arisen in two distinct instances in the class of mammals, and the path by which the Cetaceans descended into the sea was necessarily quite distinct from that followed by the Sirenia. The latter order is not, however, so devoid of "missing links" as is the Cetacean order, inasmuch as an extinct tertiary beast, the *Halitherium*, had much more considerable rudiments (though still but rudiments) of the hind-limbs than any existing Sirenian possesses.

Before concluding these brief notes on a few of the many "missing links" which are required to complete, for our imagination, the vast chain of living forms, it may be useful and suggestive to give a short statement of some of the more important changes which appear, according to our present knowledge, to have occurred in animal life from the earliest fossiliferous period and the most recent geological times.

In the *Cambrian* rocks (at the bottom of the Primary series) we already find numerous Trilobites,* and certain

* Space does not allow us to explain what the creatures are, the names of which are here given, but they are such as are found in every elementary treatise on Fossil Animals—*i.e.*, on Palæontology.

lamp shells (Brachiopods), mollusks, worms and polypi, stony sponges, polyzoa, and an echinoderm or two.

In passing to the superincumbent *Silurian* system we meet with numerous Polyps and those curious stalked starfish-like creatures called Crinoids, a rich fauna of Trilobites and Brachiopods, while amongst the altogether new appearances are certain Crustaceans (Eurypterida), species of Nautilus, and a few true fishes.

In the *Devonian* strata we still find the majority of Silurian invertebrates,* but often in changed numerical proportion. Thus the Eurypterida have enormously developed and augmented, while Trilobites have greatly diminished, in numbers. True fishes also have greatly increased, though for the most part the central part of their backbone still remains soft and unossified. But we now meet with creatures of startling novelty—namely, true insects, which (so far as yet known) have made their first appearance on the theatre of life.†

In the Carboniferous and Permian rocks—which bring us to the top of the Primary series—we still find abundant Crinoids and other allied Echinoderms, but the Trilobites pass into extinction. Crustaceans, allied to the lobster, make their appearance, and spiders and scorpions also enter upon the scene. Reptiles also begin to show themselves, often with imperfectly ossified backbones, while great amphibians, of the Labyrinthodont kind, and other small ones allied to our efts, are found to have left full evidence of their existence.

In passing from these rocks to the *Trias* above them, we enter upon the lowest of the series of secondary formations. Therewith we lose sight of the majority of the Primary forms; a new order of corals (that of the Madrepores) replaces those of the before existing order (*Rugosa*); a kingdom of sea urchins occupies the place of former Crinoids and shellfish of the oyster and mussel class (Lamellibranches) people a world before filled with lamp shells, which have now become comparatively few in number.

The group of the Nautilus (one species of which still exists) is for the most part replaced by Ammonites. Fishes

* *I.e.*, animals without backbones.

† Since writing the above we have heard of the remains of a Silurian cockroach.

of new forms abound—fishes the tails of which possess an external symmetry which was wanting in their predecessors. Labyrinthodonts abound, but more noteworthy is the progress upwards of the reptilian tree of life. Two promising shoots appear from it—one the parent of the great marine reptiles before spoken of, and the other the beginning of the Dinosaurs—the reputed progenitors of all bird-life. Footprints are here found which some naturalists regard as being those of birds, but which may be but the impress of bird-like reptiles. However this may be, it is certain that here we find the earliest yet known apparition of that class to which we ourselves belong, for at Stuttgart and in Somerset, relics have been found of a small beast allied to that existing marsupial of Australia known as Myrmecobius.

As we pass further upwards to the *Jurassic* strata, we miss, more and more, the vanishing forms of primary life, while the secondary reptilian life becomes so predominant that this period may be fitly called that of the reign of reptiles. Ichthyosauria, Plesiosauria, Dinosauria, and Pterodactyles alike rule in the sea, the dry land, and the air. Fishes undergo certain modifications, bringing them a little nearer towards those of our own day. Beasts of small size give scanty evidence of their existence, but a true bird, though with an unbirdlike length of bony tail, makes its first appearance—the Archæopteryx. Corals, sea urchins, ammonites, and lamellibranches continue on their way with snail-like animals or Gasteropods.

The *Chalk* formation shows us many Jurassic forms still existing, but Mososaurian reptiles now have the upper hand; the fishes have come to resemble closely those of the existing creation. True crocodiles make their appearance, also birds provided with teeth. The chalk exhibits the last known remains of reptilian supremacy, as also of the great mass of species of all kinds which represent the life of the secondary period.

In passing from this highest secondary rock to the *Eocene*, or lowest of the tertiary series, we come upon a different world indeed. The wings of Pterodactyles no longer agitate the air which is now beaten by the feathered wings of multitudinous kinds of birds, though some of vast size are wingless.

Mammals become numerous, of large size, and reign undisputedly on land. In the next, or *Miocene* set of rocks, both beasts and birds attain their highest known richness of development. It is, as it were, the culmination of tertiary life, which in the next, or *Pliocene* period, shows a diminution in the number of great terrestrial quadrupeds, though the marine beasts, Cetacea, abound more than ever before. Here also, for the first time, we find beasts belonging to genera which have species now living on the earth. In the last most recent, or *Quaternary* deposits, we find the species now living in the world, and plain evidence of the existence, if not the commencement, of the reign of the visible lord of the terrestrial creation—the reign of Man.

We may possibly in a future article call attention to some other noteworthy missing links in the long series of forms, the successive incoming of which we have just briefly indicated, so far as fossil remains yet discovered justify any opinion on the subject.

Art. VI.—NEEDLEWORK.

1. *Needlework as Art.* By Lady Marian Alford. Sampson Low & Co. 1886.
2. *Textile Fabrics.* A Descriptive Catalogue of the Vestments, Needlework, Dresses, &c., in the South Kensington Museum. By the Very Rev. Daniel Rock, D.D. Published by the Science and Art Department. London: Chapman & Hall. 1870.
3. *A Short History of Tapestry.* By Eugène Müntz, Conservateur du Musée de l'Ecole des Beaux Arts, Paris. Translated by Miss L. J. Davis. London: Cassell & Co. 1886.

NOT very many years ago it would have been pronounced the height of affectation to talk of needlework as art. Crewels were remembered by a few as a tradition of the Stuart times. Embroidery, properly speaking, was not. Tapestry had not

wholly ceased to be made abroad; but in England it was only a curiosity to be sought for in Wardour Street, instead of in some workshop where artist and craftsman combined to give dignity to the work. The only ornamental needlework that was in vogue was "Berlin wool," with its crude colours, its frightful geometrical patterns, and, worse still, its birds and flowers, and (lowest depth of all) the hideous wool-mosaics which came of attempting to vie with Miss Linwood and Mrs. Pawsey, and to copy Landseer's "Bolton Abbey" and other popular pictures in such very unsuitable material. Now the pendulum has swung the other way. We are nothing if not artistic; and the faded hangings which had been banished to the attics are brought out and cleaned and touched up, sometimes to the extent of transferring the work to fresh material, and, moreover, are talked and written about as only æsthetes can talk and write about the last new hobby. Lady Marian Alford, in her very beautiful work, sounds a note of warning in regard to this. As sensible as she is enthusiastic, she reminds her readers that to be quaint in art is "to be funny without intending it," and that incongruities annoy even where the work is finest. "The only claim of quaintness to be pretty is its *naïveté*; and the quaint is much more easily imitated than the beautiful."

With this reminder, that things are not necessarily beautiful because they were wrought in the days, perhaps by the fingers, of our great-great-grandmothers, let us glance, under Lady Alford's guidance, at what is really beautiful and characteristic in one of the oldest as well as the most universally diffused of the arts. There never was a time, since "articulate speaking men" (as Homer calls them) were on this earth, when needlework of some kind was not practised. It is earlier than weaving: the first medium for its employment being skins, which the "cave woman" stitched together and adorned with the same kind of figures which the "cave man" engraved on mammoth ivory and reindeer horn. The famous funeral tent of Queen Isi-Em-Kebs, Shishak's mother-in-law, is a survival, and a very late one, of this old leather-work. It is a huge patchwork of thousands of pieces of gazelles' skins, dyed alternately pink and green, stitched (in glovers' stitch)

with stout thread of colours to match; the flat top and side flaps being adorned partly with needlework, partly with printed flowers, eagles, &c. There, in the Boulak Museum, may be seen this strange piece of work, which must have been archaic in Solomon's day, it being an axiom with archæologists that at grand funerals the oldest of old fashions in dress and furniture are preserved. With the newer Stone Age weaving began, or (in stricter phrase) the people, whose westward migration apparently took place before the use of metals was known, brought weaving with them. Flax threads and spindle whorls are found even in those of the Swiss lake-dwellings where no bronze has as yet been discovered. The Bronze Age gives us woollen weaving, which began with plaiting, as is seen from a piece of woollen stuff discovered in one of the Yorkshire barrows opened by Canon Greenwell. Gold, again, was plaited before it was woven. The oldest gold threads were flat ribbon-like strips. Of such strips was made the burial mantle of Childeric; and when his grave at Tournai was opened in 1654 the earth about it was full of them. Dr. Rock also quotes from the Abbé Cochet (*Le Tombeau de Childeric* 1re) the account of a gold head-net found in 1855 in a Merovingian grave at Envermeu: "Les fils, aussi brillants que s'ils sortaient de la main de l'ouvrier, n'étaient ni étirés ni cordés. Ils étaient plats, et se composaient tout simplement de petites lanières d'or d'un millimètre de largeur. . . ." Fragments of a similar vestment were found in an old burial-place at Chessel Down, in the Isle of Wight. Naturally, however, gold was seldom used alone, though the amount of it in many old Church vestments is very large. It was as large in many royal and other non-religious vestments, though of course these have suffered the most from the destruction to which all gold-wrought fabrics are specially liable. Gold brocades, says Sir G. Birdwood (*Textile Arts of India*), are older than the Code of Manu. Whether the art began in Babylon or was transmitted thither from the far East is a moot point. Most scientists attribute the Babylonish art-culture to the Accadian element in the people; and, the Accadian language having been agglutinative, we naturally look eastward

for the original home of those who spoke it. At any rate, they were quite distinct from their Semitic conquerors, whose Chaldean speech so nearly resembled Hebrew. It was to Babylon * that the Egyptians looked for their finest embroideries; they imported the "blue and scarlet" worked with gold, but none of those rich materials have been found in their tombs. Usage may have limited them to home manufactures, as being more "old-fashioned"; at any rate, the mummy wrappings are in great part painted (or printed), instead of being worked with the needle. Still, a good deal of embroidery, most of it in worsted on white linen, has been found in Egyptian tombs. Some good specimens may be seen in the British Museum, in which, though the linen is much discoloured, the colours of the wool are as bright as ever. More artistic, and much more modern, are the embroideries found in Crimean tombs. Here the fabric is of wool (in one case it is silk), and the designs include borderings of stags' heads, of ducks with yellow wings and dark green heads and throats, &c. The date of these is about 300 B.C. In regard to the Egyptian mummy wrappings, it is worth noting that a few years ago the notion was started that they were cotton. Herodotus, speaking of the embroidered corslets which King Amasis presented to two famous Greek temples, and which were worked in gold and colours, with animals and other decorations, says they were worked εἰρίοισι ἀπὸ ξυλοῦ (on wool from trees). On the other hand, speaking of the mummy wrappings, the same historian asserts that fine linen of flax (*byssus* he calls it), and that only, was by law allowed to be used for the purpose. What then does he mean by tree-wool? The mummy cloth was submitted to experts, and a number of samples, examined by eye and finger, were by several of the most competent pronounced to be cotton. When, however, the microscope was applied, the correctness of the Father of History became evident. Flax fibre differs wholly from that of cotton. The

* This excellence lasted till quite late. Josephus, describing the wonderful veil which Herod the Great hung at his "beautiful gate of the Temple," calls it a Babylonian curtain.

latter is a transparent tube, jointless, flattened so that its inward surfaces touch one another, and also spirally twisted; the former is a miniature bamboo, a transparent tube, jointed, but not flattened or twisted.

Dr. Rock throws out the suggestion that Amasis' tree-wool may have been silk, which Virgil describes the Seres as combing off the leaves of trees: "Silk thread may have found its way into Egyptian markets, and would have been thought more fitting than cotton to grace a royal gift to a sanctuary of high repute." Yet on the same page he admits that "the older Egyptians never beheld silk. . . . Not the smallest shred of it has been found in Pharaonic tombs or ruins." While, as for the Jews, the *meschi* of Ezek. xvi. 10, 13, and of Prov. xxxi. 22, he takes to be the finest linen or cotton "drawn out" (which is the root-meaning of the word).

It is not, however, to the remains in mummy cases, or Greek tombs, or Yorkshire barrows, or Swiss lake dwellings, that we must look if we would realize the glories of old needlework. The needle itself was a precious instrument; in Celtic tombs bronze needles are found, in silver cases. As late as the publishing of "Gammer Gurton's Needle" its loss was enough to make the chief incident in a drama. But its oldest triumphs have mostly perished; of many a king's daughter might it be said, "her clothing is of wrought gold: she shall be brought unto the king in raiment of needlework." For many a conqueror the choicest prize, "meet for the necks of them that take the spoil," was "a prey of divers colours of needlework on both sides." But of the earliest of these the existing examples are very few and fragmentary. Of the later glories of needlework we have historical accounts. Athenæus and Diodorus vie with one another in their glowing descriptions of Alexander's wedding tent, with curtains of richest embroidery (or was it tapestry?); and of the yet more marvellous catafalque, of many storeys, each decked with pictured hangings, which formed the funeral pyre of his friend Hephæstion. Even this was surpassed by the banqueting tent erected in Alexandria by Ptolemy Philadelphus; and when Rome began to ransack the East, these splendid embroideries were displayed at the triumphs of her great generals. Lucullus is said to have brought back some

of those which had been used by Alexander. Of the earlier work we must form our ideas mainly from painting and sculpture, which are also a wonderful help in judging of embroidery of every age. The high-warp loom depicted on the *hypogeum* at Beni Hassan is singularly like those still in use at the Gobelins; it has the vertical chain, the cross rods, the comb to keep the texture even. Yet it dates from about 3000 B.C. The Assyrian bas-reliefs, of which there are such fine examples in the British Museum, show in the dresses of the kings and their attendants, and the trappings of the horses, what Lady Alford calls "solid masses of embroidery, which have a masculine look, suggesting the design of an artist and the work of slaves." The Ravenna mosaics set before us, in the dresses of Empress Theodora and her ladies, what was the embroidery of the period. The same with other branches of Roman art. The sixth century ivories in the Wasserkirche Museum at Zurich, and the earlier example at Halberstadt, show exactly the traditional ornament with which from quite early times the consular *trabea* was enriched. The Christian tombs in our own and other countries give, in like manner, perfect representations of the state of the art at various periods. In some cases this can be tested. The Black Prince's surcoat, for instance, which hangs above his monument in Canterbury Cathedral, is covered with just the same kind of work as that engraved on the recumbent figure below.

Ornamental needlework, then, is an art of the highest antiquity, and was, moreover, carried to high perfection in very old times. The tabernacle of the Jews, the Babylonish garment which was Achan's ruin, the hangings that the women wove "for the grove," are matched by work in Egypt (whither the Jews and the old world generally went for the finest linen), by work in Greece (where the glory of the Parthenon was the *peplus*, an embroidered robe yearly dedicated to the goddess), by work in Lesser Asia (where, at Sardis, were made the short-napped carpets on which, at the Persian Court, the Great King alone had the right to tread). Right on to the Middle Ages the tradition was kept up; needlework and tapestry (which Lady Alford claims as a branch of neeedlework) being so intermixed that it is hard to

say which is which, the Latin word *texere* being sometimes used for work not done in the loom, and divers styles being so pieced together that in the Sicilian tapestries wrought by the Greek slaves of Count Roger (A.D. 1148) survivals might be found of all kinds of patterns, Oriental and even Chinese, as well as Greek and Roman—nay, even, it is pretty certain, the type of "the cherubims of cunning work" which were on the vail of the tabernacle. Almost every age had produced its own marvels in the way of needlework. We have spoken of Alexander; his embroidered hangings were doubtless the traditional Babylonian work—an improvement, says Pliny (*Hist. Nat.* bk. viii. 74) on the embroidery invented by the Phrygians. These *Babylonica peristromata* recur constantly in the Latin poets, who, from Catullus (*Epithalam. Pelei et Thetidos*) and Ovid (*Metamorph.* vi.) to Claudian (*Raptus Proserpinæ*) delight in elaborate descriptions of embroidery. Roman amateurs bought such work for its weight in gold: Pliny says that Nero spent on them four million sesterces (£33,600). Babylonish, too, in style must have been the mantle of Alcisthenes of Sybaris sold, Aristotle (*De Natural. Auscultat.*) tells us, by Dionysius the elder to the Carthaginians for 120 talents (£26,000); for in the bordering were pictured the sacred animals of the East. And yet it must have been wrought in Magna Græcia, for its centre contained, besides figures of Zeus, Hermes, and the rest of the deities, a portrait of Alcisthenes himself. Much of this work, on which must have been lavished such an amount of skill and patience and time, was deliberately burned. Herodian describes the tapestries which covered and were consumed with the funeral pyre of Septimius Severus (A.D. 211); and this is only a typical case of what often occurred at the funerals of worthy Romans. For a long time the Emperors studiously rejected embroidery for everyday-wear, confining themselves to the purple cloak, which became them as "chief military officers of the republic" (and by law they were no more). Aurelian (A.D. 270) would not wear silk, which was then becoming very fashionable, and was worth its weight in gold; he even refused his wife a silk dress ("Et cum ab eo uxor peteret ut unico pallio serico uteretur, ille respondit: absit ut

auro fila pensentur."—*Vopiscus*, 45). With Diocletian came in the Eastern fashion of dressing the monarch in gorgeous robes; and when Julian overran the old Assyrian Empire he brought back embroideries which seem to have been very like the bas-reliefs of Khorsabad. Under the Sassanide dynasty (A.D. 226–652) embroidery and its kindred arts, brocading and tapestry, found a home at their capital, Ctesiphon. One may read in Gibbon, and in Karabacek (*Die persische Nadelmalerei*, Leipsic, 1881), an account of the splendid pieces of work which, when the Sassanides were overthrown, fell into the hands of the Mahometans. These latter had then no scruple in using hangings on which living creatures were depicted, or even in reproducing such in their own work. At Kairouan, in 964, the Fatimite caliph Mœzzli din Allah caused to be made a hanging representing the earth and all its mountains, seas, and rivers, roads and towns, Mecca and Medina prominent among them. Mostansir, at Cairo in 1067, had hangings representing elephant enclosures, the borderings wrought with birds and beasts (Müntz, p. 51). Through the Arabs the art was transmitted to Spain; and the Crusades spread its products all over Europe, reviving the tradition which had never wholly died out.*

But there is one kind of needlework—and that in which we are specially interested—which was certainly home-grown, owing nothing to foreign methods, however much its patterns may have been modified by the influence of that Byzantine art which had gathered together all the various styles of East and West. This was the English work which, as *opus Anglicanum*, maintained a distinct and highly honoured place down to the time of the Reformation. Lady Alford is fain to go back for its beginning to pre-English times. She believes (p. 359) that the mantle of skins which covered Boadicea's tartan tunic was worn with the fur inside, the outside being embroidered. She thinks the Empress Helena, wife of Constans

* It is curious that Arras, the earliest centre of mediæval tapestry, had from time immemorial been famous for fine wool-weaving. The Emperor Carinus (A.D. 283) had mantles made by the Atrebates, and St. Jerome speaks in high praise of their *indumenta* (fine woollen under-garments).

and mother of Constantine, was great at her needle, and believes that the embroidery attributed to her, and said (Bock. *Liturgische Gewänder*) to be still preserved in the church at Vercelli, is genuine. This is not the only sample of Helena's work; Philip the Good, Duke of Burgundy, had a "riche et ancienne table d'autel de brodeure que on dit que la première Emperriezze Christienne fist." That other British ladies did not emulate the Empress she attributes (like Elton, *Origins of English History*) to Roman misgovernment and neglect.

With the settlement of the English we begin to stand on firm ground. The Anglo-Saxon ladies (accustomed in heathen days to embroider war-banners) had also the tradition of their Roman fellow-Christians, like Proba who (Claudian says) embroidered her sons' robes when they were raised to the consulate; and well they maintained it. It is worth while to look into Mrs. Laurence's *Woman in England*, or into Wright's *History of Manners*, in order to see how abundant is the evidence on this point. Adhelme, Bishop of Sherborne (died 709), in one of his poems, speaks of nuns and other ladies weaving as well as embroidering. He himself had "a robe wrought with a most delicate thread of purple, adorned with black circles and peacocks." Beowulf talks of "the guest-hall garnished with gold-embroidered cloths." So popular was the work that Archbishop Cuthbert, at the Council of Cloveshoe (A.D. 747), exhorts nuns rather to spend their time in reading or singing psalms than in weaving and knitting vainglorious garments of many colours (*Spelman Councils*, i. 256).* The coronation mantle which Wiglaf, King of Mercia, gave to Croyland Abbey (Strutt's *English Dresses*, ed. Planché; and Stewart's *Historia Eliensis*), embroidered with the tale of Troy, seems to have been a stray fragment of Græco-Roman art. It is wonderful how these things got dispersed. The Norsemen are almost as confusing in this way as the Phœnicians, thanks to whom we find Egyptian work in Italy; just as Celtic work is

* The *Ancren Riwle* (Rule of Anchoresses), written in the twelfth century, forbids "nuns and ankresses to make purses to gain friends therewith, or blodbendes." These were narrow strips to wind round the arm after bleeding, which in those days, and till a generation ago, was done periodically for health's sake. Of course they could be made very ornamental.

found in Scandinavia, and Byzantine in Iceland. But it may have been home-work, for the beautifully drawn figures on St. Cuthbert's stole at Durham are rather Byzantine than English in style; yet Ælfleth, Queen of Edward the Elder, had it made for Frithestan, Bishop of Winchester ("Ælfled fieri præcepit pro Episcopo Fridestano" is inwrought on it).* Another Ælfleth, wife of Brithnoth, the East Saxon champion against the Danes, was herself great at embroidery. When her husband was slain she embroidered his exploits on a curtain which she gave to the minster at Ely, where his headless body was buried ("Cortinam gestis viri sui intextam atque depictam in memoriam probitatis ejus ecclesiæ Eliensi donavit."—Stewart, *Hist. Eliens.*). Edward's queen might well be fond of needlework, for William of Malmesbury says that the king brought up his daughters not only "ut literis omnes in infantia maxime vacarant, sed mox etiam ut colum et acum exercere consuescerent." St. Dunstan was a famous designer of what in later days were called cartoons. He prepared a series for a pious lady, Æthelwyrme. What they were like may be judged from the drawing (said to be by him) in his Missal, preserved in the Bodleian at Oxford. Cnut's first wife, Ælgyth, worked vestments covered with golden eagles for Romsey and Croyland. His second wife, Emma of Normandy, did the same; as did Edith, Edward the Confessor's wife, who also found time to embroider her husband's coronation mantle. Indeed, English embroidery was so renowned that Matilda, William the Conqueror's queen, made quite a collection of it, forcing the terrified monks of Abingdon, for instance, to give her their richest vestments (*Abingdon Chronicle*, quoted by Rock, p. xcix.). She also employed English workwomen, and bequeathed to her church at Caen a chasuble, "casulam quam apud Wintoniam operatur uxor Aldereti, atque aliud vestimentum

* The stole, maniple, girdle, &c., were personal gifts to Frithestan, and when he was dead they appear to have reverted to the Crown. Athelstan, Edward's successor, gave them to St. Cuthbert's shrine. Dr. Raine (*St. Cuthbert*) says they are of real flat gold thread, not the usual silver-gilt wire; and in the weaving, vacant spaces seem to have been left for the figures, which were afterwards inserted with the needle.

quod operatur in Anglia." * Curiously enough, though the communication with India and Africa was still very indirect, parrots were exceedingly popular in English work. Traditionally they were the birds that used, night by night, to bring word to the Queen of Sheba of all that Solomon had said and done during the day. They therefore almost always appear in any work representing the adoration of the Magi; for instance, on the splendid crimson velvet cope belonging to Mount St. Mary's, near Chesterfield. Dugdale tells us how much they were used in the vestments of old St. Paul's. Much of this work was of course done in religious houses—men occasionally using the needle as well as women. At the Reformation it all came to a sudden end—far more sudden than the so-called downfall of the arts when Christianity at Rome supplanted heathenism. Anything more striking than the contrast between work like the Dunstable pall and some of the other latest examples of pre-Reformation work and that of Elizabeth's time it is hard to conceive. The execution is still wonderfully perfect (imperfection in this respect came in all at once under James I.); but the designs are usually contemptible: the spirit of the work is gone. A linen jacket belonging to Louisa, Lady Waterford, is a case in point:

"It is covered with flowers, fruit, and berries, all carried out in satin and lace stitches. There are butterflies with their wings disengaged from the ground; pods bursting, and showing the round peas; caterpillars stuffed and raised; all these astonish by their quaint perfection, and shock us by their naturalistic crudeness of design, and the utter want of beauty or taste in the whole effect. The impression left on the mind is: how dear it must have cost the pocket of the purchaser and the eyes of the workers!"

At the Reformation, such of our Church embroidery as

* The Bayeux tapestry, Dr. Rock thinks, is certainly not Matilda's work. It was probably made in London at the cost of one of the three Bayeux knights who followed the Conqueror, and to whom he gave much land. Matilda would never have wrought her husband's deeds on coarse white linen with common worsted; and any work done by her would have been given to Caen. Mrs. Stothard cut off a bit of the tapestry (or rather embroidery) while her husband was making drawings of it. This fragment is in the South Kensington Museum (No. 675).

escaped the melting-pot was conveyed abroad. Thomas à Becket's mitres and vestments are at Sens (one mitre is said to have been lately brought to England). At Rheims is the famous Tyrian purple (rose-red) satin cope on which is embroidered in gold, and in the pearls for the use of which our workers were so famous, the tree with twelve leaves, "for the healing of nations"—that tree of life which as *homa* or *soma* is found in old Indian and early Persian designs as well as on the modern so-called Persian rugs, on Assyrian bas-reliefs as well as on Sicilian silks. What has become of the magnificent frontal made in 1271 for the high altar at Westminster Abbey, the bill for which, with its seed-pearls "ponderis v marcarum," and its "grossis perlis ad borduram ponderis ii marcarum," is copied by Dr. Rock from the Chancellor's Roll, we cannot tell; but at Valencia are a chasuble and two dalmatics, bought at a sale in Henry VIII.'s reign by two merchants, Pedro and Andrew de Medina. The background of one of these represents the Tower of London. The Syon cope, made, Dr. Rock thinks, at Coventry, and given to the nuns of Sion House, near Isleworth, was by them carried through Belgium, France, and Spain, till at last they and it found a home in Lisbon. It has lately come back, and is now in the South Kensington Museum. Further testimony to the fame of English embroidery is not wanting.* William of Poitou, the Conqueror's chaplain, says the Normans were as struck with the splendidly embroidered garments of the Saxon nobles as they were with the beauty of the Saxon youths. Adrian IV. got his sandals and mitres from England. Innocent III., seeing certain copes with desirable orphreys,† and being told they were English work, exclaimed (says Matthew Paris, quoted by Rock, *Church of our Fathers*, p. 278): "Surely England is a garden of delight; in sooth, a well inexhaustible! And where there is

* One of the special excellences of *opus Anglicanum* was its being brought—by the help of heated irons applied to the faces and figures, making dimples and corresponding elevations—perilously near to bas-relief. This is imitated in the modern Munich work.

† The word orphrey (*auriphrygium*, Phrygian goldwork) is first found in Domesday (Buckingham), where Godric, the sheriff, gives Alvire, the maiden, half a hide of land for her life, "if she might teach his daughters to make orphreys."

so much abundance, thence may much be extracted." And the honesty of our work was insisted on by law; while Sicilian and Spanish "woven gold" was merely gilded parchment, our workers were forbidden by statute to use anything but pure metal (Hartshorne's *Mediæval Embroideries*). The obliteration of embroidery from the list of arts was more complete in England than elsewhere, partly through the change in religion, chiefly through the protective edicts which condemned us to barrenness of design.

And now we must take leave of a subject our treatment of which has necessarily been very inadequate. Our fair readers may have expected that we should go into the mystery of stitches—the *opus Phrygionium* (passing or metal thread-work, *passementerie*) and *opus pulvinarium* (cushion-work), and *plumarium* (feather stitch), and *consutum* (appliqué), and the rest. Taylor, the Water Poet, in his *Praise of the Needle*, gives a list of those in use in his day:—

> "Tent-work, raised-work, laid-work, prest-work,
> Net-work, most curious purl or rare Italian cut-work,
> Fine fern-stitch, Irish-stitch, fisher-stitch, and queen's-stitch," &c.

Designs change, sometimes rising to the highest point of decorative art, sometimes falling back to the lowest and most meaningless repetitions; but the stitches vary very little. Sir G. Birdwood thinks every stitch is to be found in Indian work. Lady Alford has not detected "mosaic" stitch in any Indian specimens, nor has she found it in Chinese or Japanese embroidery; but then it is found in Egyptian work! This matter of stitches is important. Many of them had, in the eclipse of art since Queen Anne's day, been wholly forgotten; and much patient intelligence had to be given to rediscovering them by studying the examples in which they were used. Stitches date from the Fall. Some savages pin their coverings together with thorns, but the Hebrew word *tafar* means to sew. In other European countries the love of embroidery goes down to a lower social stratum than in England. Among Greek and Italian peasants "white embroidery" and "Madeira work" are in great use for smocks and aprons and borders of sheets. In Germany much curious work is done, evidently

from very old designs. The Spanish work, in black or white linen, is well known. Why is it so different with us? Why should anything approaching to decorative art be in these islands the accomplishment of educated women, and not the employment of leisure moments in the houses of the poor? And why, again, should not our poor use what they do work at? What Buckingham or Devonshire lass ever dreams of wearing the laces she so deftly makes? What Irish girl ever dons the guipure or Maltese or other work which she may be taught to make in such perfection, and for which, alas! she gets such shamefully inadequate payment? It is for ladies like Mrs. Floyer and Lady Alford to remedy this, to show practically how art may be so brought down as to brighten and beautify life in its lower levels.

Very rich church vestments, made in Irish convent schools, were exhibited in the Dublin Exhibition of 1882, and in that at Cork the year after. In these, though the designs were not always what might have been expected from a people so famed for art-work during the early Middle Ages, the execution left nothing to be desired.*

Under "Opus pulvinarium" Lady Alford (following Semper) ranks "canons" and "cross" and indeed all except the flat and lace stitches. It is curious that the glazed brick mosaics on Assyrian walls, inlaid into the unbaked clay, have just the effect of a surface worked all over with cross-stitch. All Berlin wool-work which, just before the recent art-revival, had degenerated into such distracting crudities, belongs to this class. It can therefore be improved; and when we see, as we often may, the "best parlour" in an old-fashioned farm-house so full of cushions and coverlets of the gaudiest patterns and of variegated antimacassars to match that there is not a seat on which the visitor can find rest, or a square foot of

* One of our finest specimens, probably English tenth-century work, are the remains of a dress taken from the tomb of a thirteenth-century bishop of Worcester, Walter de Cantilupe. The dress found round a body cannot be later than that warrior's death (except in the few cases of ceremonial re-interment); it is often earlier. Antiquity was then of no value, and vestments, hallowed by use, yet too shabby for public show, would often be utilized in this way. The Cantilupe dress is red silk, wrought with white silk and gold thread (flat stitch).

space on which the eye can repose, we may take comfort in feeling such a waste of time and ingenuity is due to ignorance, and that the study of such works as Lady Alford's will lead the way to better things. Nor do the much laughed-at Berlin wool-workers, with their "tapisserie d'Auxerre," and the landscapes and buildings that still have their votaries,* alone need enlightenment. The recent revival of crewel-work may become just as great a nuisance artistically as was the wool-work. A piece of linen is not so annoying on a chair-back or on a small table as a net in the meshes of which hair, hands, buttons, dress, were sure to be caught; but in spite of all our talk about art, the effect of much of our crewel-work is sadly depressing. The workers want to be reminded of what we already quoted from Lady Alford about that infantile quaintness, sometimes touching as well as amusing, which we pity while we admire, and which is characteristic of the revival of embroidery in the Middle Ages. "But," as she says, "to imitate quaintness must be a mistake in art, as in life it is absurd to imitate innocence." This is too sweeping, and the parallel does not hold. But still we may easily have too much quaintness; and crewel-workers need to be reminded that to stitch over the printed outlines of "Little Boy Blue" or "Goody Two Shoes" is not a triumph of art—is indeed very contemptible work for the descendants of those ladies who wrought the gorgeous vestments figured in Lady Alford's book. Let them look at the dalmatic of Charlemagne in St. Peter's sacristy at Rome, "the first and highest amongst ecclesiastical embroideries, gold on light blue satin, which had quite fallen into strips, but has been carefully mended to avoid transferring." Some of the details of this glorious work, instinct with the Greek spirit which is seen in the mosaics of Santa Pudenziana, are surely better worth copying than the inane puerilities of which we have been speaking. If for no other reason, it is worth while to get hold of Lady Alford's book because of its beautiful photo-engravings of this dalmatic.

* In the Crystal Palace were to be seen for a long time (possibly are still there) views of York and Lincoln worked on white silk with the rovings of black lute-string and manufacturers' silk. "They were much admired!"

Historically it is famous; there is no reason to doubt the tradition that Charlemagne wore it while, vested as a deacon, he sang the Gospel at High Mass when he was crowned by Pope Leo III.; and Lord Lindsay (*History of Eccles. Art*) says Cola di Rienzi wore it over his armour when, after the manner of the Cæsars, he rode up to the Pope's palace, with trumpets and horsemen, crowned and truncheon in hand, *terribile e fantastico.* As art, it is representative of the "Ibi and Ubi" in our Lord's life; the Transfiguration on the back, on the humerals the sacraments of bread and wine, on the front the Saviour in glory. Or if they would confine themselves to English work, let them look at St. Silvester's cope in the treasury of St. John Lateran in Rome; or at the English thirteenth-century cope in the Museum at Bologna; or at the Daroca cope, English fourteenth-century work, in the Madrid Museum. These are noble examples, and the study of them cannot fail to inspire a longing for nobleness in design and beauty in execution. But, it may be said, all these are ecclesiastical, and we want something for the household. There is plenty of this too in Lady Alford, from the simple Greek wave patterns to the rich brocades which the Portuguese sent to be worked at Goa at a time when we were allowing our needlework and tapestry to grow coarser and coarser, poorer and poorer, rather than relax our protection and admit Indian embroidery. We deprecate anything like "ecclesiastical millinery," and yet the chapters in Exodus remind us that nothing which the skill of man can effect is too precious for the service of God. But leaving the question of ecclesiastical art, as a living thing, wholly in abeyance, we can assure our readers they will in Lady Alford's book find plenty of subjects which lend themselves to secular dress and decoration. They will find, too, what is very needful just now, some sensible protests against the abuse of the phrase "high art," so often appropriated by what is lowest and most feeble.

We have only gone round the edges of what has become, if not a great, at any rate a most popular subject. We have not gone to the original authorities—Semper, Von Bock, Yates (*Textrinum Antiquorum*). We have said nothing of Chinese and Japanese art, which so constantly "for symmetry

substitutes its corollary, balance, secretly preserving that, even in the extremest whimsicality of composition" (Charles Blanc, *Art in Ornament and Dress*). We have omitted the whole subject of tapestry (*opus pectineum*), which Lady Alford claims as part of her subject,* and on which M. Eugène Müntz and M. Castel have written so exhaustively. But to have introduced the reader to such a rich and beautifully illustrated work as Lady Alford's, and to show how much is to be learnt from Dr. Rock's opening chapter about the needlework of our ancestors, is something in itself. Lady Alford hopes that the Royal School of Art Needlework, connected with the names of Lady Welby and Mrs. Dolby, will do wonders. We hope it may; and its work will surely be helped by the publication of her own timely volume. Her book ought to help many, who would else have been content with monstrosities, to imitate Marina of whom Shakespeare says:

> "Deep clerks she dumbs, and with her needl composes
> Nature's own shape of bud, bird, branch, or berry,
> That even her art sisters the natural roses."

Art. VII.—THE MORALS OF THE TURF.

William Day's Reminiscences of the Turf. With Anecdotes and Recollections of its principal Celebrities during the present Reign. London: Richard Bentley & Son. 1886.

IF the contemplative man, "exempt from public haunts," can find "sermons in stones," his success may justify the busy man in an attempt to extract golden lessons from a book which, at first sight, might not seem fruitful of treasure for pages usually devoted to higher and deeper subjects than the morality of the racecourse. We must not venture to hint that far down in the bosom of any of our readers there may

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* Her account of Sir F. Crane's Mortlake factory, towards setting up which James I. gave "the making of three baronets," she tells very amusingly.

lie hid a tendency to betting, a rage for the acquisition of horseflesh, a mania for getting rid of money in the most rapid manner and with the least possible return of enjoyment. But we none of us know the depths of our own hearts; and until we are tried with a superabundance of wealth, none of us can say how we should withstand seductions which in the distance seem ridiculous and contemptible. To the philosophic student of character, interested in noting the outward and visible signs of grace, or the want of it, a fine field of observation is opened —not so much on Epsom Downs, where the calmness of the metaphysician is liable to be disturbed and his mental abstractedness rudely shocked by the abstraction of purse, watch, or other mundane trifle. Rather let him peer into character in the pages of Mr. William Day, of Danebury, jockey, trainer, owner, son of "Honest John," and one who is as successful with the inkstand as he has been in the saddle. From him—a devoted admirer of "sport," born and bred in the stable atmosphere, but withal, we will hope, uncorrupted by the vitiated air—may be learnt some of the evils and dangers connected with the licensed lotteries called "races;" and, without the heaviness of a didactic essay, a wholesome moral may be pointed with some of the "frightful examples" which he strikingly portrays.

The patrons of the turf may be broadly divided into two classes—the dupers and the dupes. The latter—and they are a multitude—are generally moved with a longing to make money at one great stroke; and though they lose again and again, like the infatuated frequenter of the gaming-table, they return to the fatal course yet once more, till their ruin is complete. But there is also a minority of this class, who, having plenty of money, are mysteriously drawn to spend it in buying and training horses, and to lose it in betting upon them, without any other probable object than that of figuring as big men in the eyes of the sporting world.

To this subdivision belonged Mr. John Baynton Starkey, a young man of comfortable estate—in value about £300,000 —of which he managed to get rid in the short space of six years, by the aid of the turf and the money-lender. Well educated, of kind and generous disposition, a family man,

unostentatious in his mode of living, why should he not have led a happy, useful, honoured life? Simply because he was bitten by the racing mania, and squandered away money and houses and land in the purchase of horses which were often of no value. Self-deluded, like some greater men, as to his competence to conduct affairs, even when his new acquisitions turned out well, he had not judgment enough to avail himself of their abilities and successes. To meet his liabilities he applied to the money-lenders, and with their too ready assistance his downfall was rapidly accomplished. The story, as told by Mr. Day, presents such an admixture of the ludicrous and the tragical that the impressionable reader may be excused for being in doubt whether to laugh or to cry over it. To us it seems to afford a striking illustration of the dangers and miseries of the betting-ring and the racecourse. But Mr. Day, with a devotion to his hereditary pursuits which is perfectly natural, tells us that Mr. Starkey's fate is not to be laid at the door of the equine stable. Was he not generous even to eccentricity? and would not his riches have taken to themselves wings just as swift if his darling hobby had been cows, sheep, and pigs, "or even a dog?" We venture to differ and to doubt; and instead of attributing Mr. Starkey's catastrophe to his fondness for the money-lending fraternity, which was only the *proximate* cause, we prefer to set it down to the credit of the racing madness which was the *primary* cause and motive of his *facilis descensus*. For he would scarcely have had recourse to the usurers but for having wasted his available money on horse-flesh and the turf. We cordially agree with Mr. Day in his warnings against those birds of night, the money-lenders; but their occupation would soon be gone if their customers did not rush headlong into racing, gambling, and kindred follies. The tale of Starkey's reckless generosity to the very man who achieved his ruin is a pitiable one, even in the midst of its absurdity:—

"Before ever he commenced racing, he made a lucky hit, as he himself phrased it, in the discovery of a rich friend in the money-lending way of business, as pleasant as he was polite, and as generous as he was obliging, from whom he borrowed £16,000; and was equally fortunate in getting rid of the liability through the assistance of another disinterested member

of the same gracious fraternity, as he afterwards expressed himself to me, 'satisfactorily, on my own terms.' These satisfactory terms were more or less the following: The £16,000 he had borrowed, or rather, I should say, had become liable for, to a Mr. H——. Wishing to pay him off, he called on Mr. Padwick with a view of obtaining his assistance in doing so. With the instinct of his craft the latter soon discovered that, in actual cash, Mr. Starkey had received but little, and at once offered Mr. H—— his cheque for £12,000 for the bills representing Mr. Starkey's debt. With the usual preliminary story that 'he had had to borrow the cash from an unconscionable old rip at a high rate of interest, and would lose money by the transaction if he took off a farthing,' and with well-feigned reluctance to the last, the offer was accepted, and the matter ended. Well may Mr. Starkey have exclaimed that 'Mr. Padwick was his friend, for he had saved him £4,000,' for apparently and actually he had done so; and well may his generous feelings have been awakened, as shown in what followed.

"'Now,' said Mr. Padwick, 'what am I to have for my services? I leave it entirely to you to say what I am entitled to.'

"'Ten thousand pounds,' was Mr. Starkey's laconic reply, without any reference to a ready-reckoner to assist him in the computation.

"And so the matter was settled."

How this devoted friend, one of the greater lights of the turf, possessed himself, without mercy, of Starkey's property, is made plain in the following extract:—

"Another method by which Mr. Starkey added to his liabilities was the ingenious plan by which he increased his stud—a plan entirely of his own conception, dispensing with cash, and represented by a deferred payment with his autograph attached. He would generally get this document done through one of his friends, by the simple process of handing it on to three well-known West End money-lending firms. In the end, he had to apply to his friend Mr. Padwick for a loan, when the following colloquy took place:

"'I want £10,000, Padwick.'

"'What for? Racing, I suppose?'

"'Yes.'

"'You can have it if you will take my stud. I am tired of it, and have too much business to be able to attend to it.'

"A seemingly moderate price for the little stud was named, and at once agreed to; and the £10,000 advanced. With this advance, added to the sum already due, interest, and the other accumulations and the horses thrown in, the debt may now be set down at about £50,000. The little stud consisted of *Drogheda*, a blind stallion, half a dozen brood mares, a like number of horses in training, including *Theodora* (after she

was useless as a racehorse, of course). The new owner was singularly unfortunate with them. I think the whole were a failure; but this, of course, no one could help, not even the generous seller.

"From what Mr. Starkey himself told me, I should think that from first to last he never received from those friends who so generously helped him in every time of need much, if anything, above £50,000 in cash and £5,000 in horseflesh—a statement borne out by what his chief creditor himself has told me. And yet for this trivial sum his ancestral estate of Spye Park passed from the hands of this misguided man to those of his trusted friend Mr. Padwick, who, on the same authority I hear, ultimately sold it for £275,000, leaving its owner without sufficient to pay his debts, beside a small annuity previously secured for his widow and children."

But we must leave the innocent pigeon, and give a few traits of the ravenous hawk. We get a fair specimen of the genus in the above-mentioned Mr. Padwick—law-student, horse-owner, and money-lender. His study of the law, though it did not furnish him with a profession, fitted him admirably for his racing and lending businesses. In the purchase of horses he is said to have "exercised special discrimination," but he seems to have been still more shrewd or fortunate in the *disposal* of his steeds. For instance, his horse *Kangaroo* beat nineteen others at Newmarket, and its plausible owner sold it to the Marquis of Hastings for the amazing sum of £11,000; after which transaction the horse, though sound, turned out to be a bad one for the purpose for which it was wanted, never winning even a £50 race. Certainly Mr. Padwick had an amount of acumen, legal or otherwise, which was of bad omen for his customers in horseflesh.

"In these transactions," says Mr. Day, "Mr. Padwick may be adjudged the salesman without an equal, in having got rid of three horses in training for the extraordinary sum of £22,000, or an average of £7,333 each; and not only credited with having thus secured a small fortune, but also with the judgment shown in selecting the time for parting with them—just when they had done all the good they were likely to do for him or any one else, and had shown public form sufficient to enhance their value in the eyes of eager purchasers."

But Mr. Padwick, notwithstanding his acquisitive keenness, presented a much closer resemblance to a gentleman than the ordinary frequenters of "the ring." Gully, ex-prizefighter

and M.P., Harry Hill (another low-lived adventurer), Pedley, Arnold, and Turner, constituted the "Danebury Confederacy," a combination to which is attributed the initiation, or at least the carrying to perfection, of the iniquitous system of "laying against dead 'uns"—in other words, accepting bets and getting commissions to lay money on horses which they knew were either unable to run or would be prevented from running.

"As a matter of fact," Mr. Day observes, "we may be content to know that Messrs. Gully and Hill did not amass the enormous sums which they at one time put together, by the innocent process of backing their own horses, or even by laying against them in the rare instances in which such a course is justifiable. Yet this always doubtful practice cannot, in any sense, be considered other than dishonest in the case in which laying commissions are accepted. For the agents who receive them know that the horses so laid against will not run; and, indeed, it is their own interest to see that they do not. Thus the backers have no chance of winning, which makes the transaction as dishonest, according to the rules of racing, as it must be odious in the sight of every man of principle."

From them we pass to the well-known name of a far different patron of the turf, Lord George Bentinck. And here we must proceed with caution, for Mr. Day has a personal grievance against the dead statesman and sportsman; and though he reminds us that "to err is human, to forgive divine"—he is, by-the-by, a well-read man, and abounds in apposite quotations from the English classics—he evidently finds difficulty in rising to the height of the godlike mood. He endeavours to show that his lordship's standard of morality in racing transactions was not so high as has been supposed. While allowing that Lord George effected various reforms on the turf, he brings some indictments against him, on the validity of which we are not competent to decide. There is still, without doubt, truth in the old proverb, "He that toucheth pitch shall be defiled therewith." The story of *Preserve's* influenza exemplifies one of the dirty tricks of the stables, whoever was its instigator:—

"In the year 1834 Mr. Greville's *Preserve* won all her two-year-old engagements, and was undoubtedly a very good mare. Her dam was *Mustard*, the dam of *Mungo*, who won the St. Leger. The following year she naturally became a great favourite for the Oaks. To assist as

much as possible in driving her back in the betting, some one hit upon the following novel and well-devised stratagem. Her nostrils were painted inside and out with a mixture of starch, flour, and colouring matter to resemble mucus, before going to exercise; a perfectly harmless mixture in itself, which could easily be removed on returning to the stable. Then by giving out that she was suffering from influenza, whoever it was that did the trick was enabled effectually to carry out his design. Yet this temporary success was afterwards deeply regretted, for the mare was beat by *The Queen of Trumps*, and Lord George for once lost a heavy stake over the event, and was therefore possibly one who, on this occasion, afforded the sport of exhibiting the engineer 'hoist with his own petard.'"

The elegance of language to be acquired in racing circles may fairly be judged by a selection from the names which Lord George conferred on his horses: *Coal Black Rose, Devil to Pay, Put on the Pot says Greedy Gut, Here I go with my Eye out, Devil-me-care.* Mr. Day asserts positively that it was his lordship's ill success in racing, and not his ardour for a Parliamentary career, that drove him from the turf. And this bad fortune he evidently considers as a judgment on him for quarrelling with the Day family and quitting the renowned Danebury stables. According to our author, it was in a fit of rage and disappointment that Bentinck disposed of his stud, estimated to be worth at least £100,000, for £10,000—a tithe of its value. In any case we can readily understand the revulsion which must sooner or later take place in any honourable mind from the meanness, the trickery, and the uncertainty of the life of the turf and the ring. The defeat of his mare *Crozier*, at Goodwood, was not an unmixed disaster to Lord George, if it led him in disgust to renounce a low pursuit and to devote his vigorous mind to ambitions worthy of a man.

Another man of note in the racing world, Mr. Wreford, used to say "he should like to live here as long as he could, knowing what this life is, but not what the next might be." His agnostic principles contributed but little to the comfort of his declining years. The last time Mr. Day saw him, "he was, at the age of eighty, steeped to the lips in poverty and overwhelmed with griefs;" a sad instance of the exceeding misery of the man who "in this life only" has hope.

An apt illustration of what is considered *honourable* dealing

among even the higher-principled frequenters of the racecourse is given under the suggestive heading, *Diamond cut Diamond*:—

"There is a good and true story to be told of a match that Mr. Swindell made with the baronet [Sir Joseph Hawley]. Just before the time appointed for it, Sir Joseph's horse was taken ill and could do no work, although he was on the spot. This information was no doubt supplied to Swindell by his touts. But his own horse was in a much worse plight, not being able to leave the stable at all. Thinking Sir Joseph would never run his horse in such a state of health, or rather illness, he ordered his trainer, Mr. William Treen, of Beckhampton, to bring another horse of his that was something of the same colour, and to say nothing to any one as to what it was, or its age, and not to satisfy any inquiry as to what he was intended to run for. This had the desired effect, and it was immediately concluded by the touts, those astonishing judges of horse-flesh, that the real Simon Pure had come up for the match, and the unwelcome news was forthwith conveyed to the baronet by the men employed for the purpose. The match was for £200 a side, half forfeit. Mr. Swindell went to Messrs. Weatherby's office in the evening and paid in two hundred-pound notes, to make stakes for the match he had with Sir Joseph the next day, and straight away left for his lodgings. Sir Joseph, coming immediately after the other had departed, said to Weatherby:

"'Have you heard anything of Swindell's horse?'

"'No, Sir Joseph,' was the reply; 'but he has just been here and paid his stake, so of course he intends to run.'

"'Then,' says Sir Joseph, 'I pay forfeit,' and the matter ended.

"Of the truth of this story there can be no manner of doubt, for Mr. Swindell told me it himself, and indeed approved what I have said when alluding to it in my previous work. I may add that he told Sir Joseph of the ruse afterwards, but the baronet would not believe him."

At the door of the trainer and the jockey are to be laid many a cruel outrage and many a base deception. To their tender mercies are subject, not only the noble creatures whose symmetry and swiftness are the sole glory of the turf, but also the thousands of foolish men and boys who stake their money on events over which they have no control, and as to which they can exercise no sagacious foresight. The instances are not a few, in which horses have been maimed or drugged to prevent them from running and winning; and these atrocities have usually been committed, with the connivance of trainers, by stablemen or boys bribed by interested knaves who had "laid" heavily against the probable winners. Our space

will not allow us to give from Mr. Day's pages the details of a notorious case which occurred a few years ago, and which was but a sample of many less prominent ones. But the uncertainties of the stable, and of the trial runs, in which a variety of deceptions are practised to mislead the "touts" and the prying gentlemen desirous of authentic information, do not constitute the only ordeal through which the high-mettled racer has to make his way. Supposing a horse to arrive safely and in good condition at the starting-post, his destiny is still uncertain. The sporting prophets of the press may utter their forecasts with the charming simplicity—or ambiguity—of the Delphic oracle of old. Yet the race is not always to the swift. Now and again the artful jockey, secretly feed by the enemy, will betray his employer, however generous he may be, and will bring in the best horse as a bad fourth, while making a grand display of scientific management. Often, too, though unbribed by others, he is heavily weighted with his own bets against the very animal he is riding with such show of vigour and skill.

We can, however, hardly wonder at the low state of morality among jockeys and stablemen, when we reflect that their horse-owning superiors and employers move habitually in an atmosphere of deceit and cunning peculiar to the turf. Even in the upper rim of the racing circle is it not thought a perfectly fair manœuvre for an owner to make the betting world believe that a certain horse from his stables is sure to win a particular race, and then quietly to enter, in addition, another horse whose performance he is certain will be vastly superior to that of the favourite; taking care, all the while, so to arrange his betting as to be a winner by the defeat of his own horse first entered? Far be it from us to deny that there are some perfectly honourable men amongst the owners of racehorses; men who admiringly appreciate the fine qualities and rare powers of the beautiful high-bred creatures, and who sincerely think they are doing good service to the nation in keeping up a famous breed, and in furnishing an exciting spectacle to the sight-seeking multitude. With a light heart they congratulate themselves on being prime benefactors to their countrymen, and ignore the gross evils that cling close

to all racing pursuits. Dazzled by the glare and glitter of a great race, they leave in the shade of oblivion the large admixture of blackguardism which leavens the miscellaneous crowd and defaces the fair country-side for many a summer day. Surely they cannot realize the fatal blight which the mania for betting breathes over the career of thousands of their countrymen, and which is not to be averted even by the most minute legislation.

The evils of racing lie bare to the gaze of every onlooker; and a heavy responsibility weighs upon the man who lends his countenance to a pursuit so doubtful in its benefits, and so certain in its calamitous consequences. More effective than any legislation on the subject will be a higher tone of public feeling, under the influence of which men of all ranks shall leave the turf and its low temptations to the fate of the once popular displays of brutal pugilism, and to the sole patronage of "legs" and money-lenders, who may safely be trusted to prey upon and exterminate each other. The day will come, and cannot come too soon, when all true men will admit that "worth and goodness and courage should not be wasted at a horse race; for horse races are rather trials of cunning than trials of speed."

Art. VIII.—SIR JAMES STEPHEN ON NUNCOMAR AND IMPEY.

The Story of Nuncomar and the Impeachment of Sir Elijah Impey. By Sir James Fitzjames Stephen. Two vols. 8vo. Macmillan & Co. London. 1885.

So much of passion and prejudice was imported into the conduct of the impeachment of Warren Hastings that it is hardly likely that we are even now in possession of the whole truth as regards many of the momentous events which happened during his administration; and it is therefore extremely desirable that that period of Indian history should be submitted to a very close and searching scrutiny by some thoroughly competent and impartial investigator. It is

accordingly with much satisfaction that we learn that Mr. Justice Stephen is already engaged upon this task, and we trust that the reception accorded by the public to the very able, and indeed exhaustive, examination of the several charges made against Sir Elijah Impey, which is now before us, may be such as to encourage him to carry out his design. A vindication of Impey against "the calumnies of the Right Hon. Thomas Babington Macaulay," was indeed published in 1846 by his son, and seems to have convinced Mr. Marshman of the substantial injustice of the charges brought against him; but the work was not so done as to command the attention of more than a very narrow circle of readers, and hence it is probable that the old story still retains its hold on popular opinion.

Sir Elijah Impey was appointed chief justice of Fort William by the "Regulating Act" of 1773, which gave Bengal the hegemony, so to speak, of India, created Hastings Governor-General with a Council of four, and established a Supreme Court at Calcutta. With Impey were joined three puisnes—Hyde, Lemaistre, and Chambers. Impey reached Calcutta in 1774, and returned to England in 1784, having been recalled to answer a charge of having accepted an office tenable at the pleasure of the servants of the East India Company—viz., the presidency of the Sudder Diwani Adalat, or Exchequer Court of Bengal. No further action was taken against him until 1787, when the impeachment of Hastings having been resolved upon, and Impey appearing to be implicated with Hastings, Sir Gilbert Elliot presented articles of charge against him. Stripped of the quasi-legal verbiage and bad rhetoric in which they were wrapped up, they amount to the following counts:—The first charged that he had committed a judicial murder in permitting the Maharajah Nuncomar to be tried by a jury of British subjects for forgery, and in passing sentence of death upon him, and refusing either an appeal or a respite; the second, that he had acted in an oppressive manner in an action known as the Patna cause; the third, that he had corruptly assumed jurisdiction over persons not subject to his jurisdiction, particularly in an action known as the Cossijurah cause; the fourth charge was that on which he had been recalled; the fifth alleged that he had conspired with Hastings to plunder the Begums of Oudh,

and taken affidavits intended to furnish a pretext for the nefarious scheme. The second, third and fourth charges are intimately connected, and may be most conveniently considered first, as they throw much light upon the relations in which Impey stood to Hastings and the Council. The Regulating Act and the Charter of the Supreme Court contained no clauses defining accurately the extent of the jurisdiction of the court.

"It would be tedious," says Sir James Stephen, "and in such a work as this inappropriate, to go into a detailed inquiry into the true legal meaning of various expressions which in different parts of the Act and Charter describe the persons who were to be subject to the jurisdiction of the court. They are sometimes called 'all British subjects who shall reside in the kingdoms of Bengal, Behar, and Orissa, or any of them under the protection of the said United Company.' Sometimes 'his Majesty's subjects' are contrasted with 'any inhabitant of India residing in any of the said kingdoms.' The Charter refers to 'subjects of Great Britain, of us, our heirs, and successors,' as qualified to be jurymen in criminal cases in Calcutta. No definition is given of any of these expressions, though their meaning is by no means plain. In one sense the whole population of Bengal, Behar, and Orissa were British subjects. In another sense no one was a British subject who was not an Englishman born. In a third sense, inhabitants of Calcutta might be regarded as British subjects, though the general population of Bengal were not. Each of these possible interpretations, and I will not say that there may not have been others, had its own special inconveniences and recommendations."

The result was a very serious difference of opinion between the judges and the council as to the jurisdiction of the court. It was agreed that by virtue of sect. 7 of the Act, which vested in the Governor-General in Council the management and government of all the territorial acquisitions and revenues of the kingdoms of Bengal," the court had no direct exchequer jurisdiction; but the court maintained, and the council denied, that the revenue officers, whether European or native, were amenable to its jurisdiction for any irregular or oppressive acts done by them in the collection of the taxes. The court acted steadily upon their view of the matter, and did their best to put down the extortionate practices of which the servants of the Company were often guilty; they also held that all farmers of the revenue were British subjects under the protection of the Company within the meaning of the Regulating Act. Hence

the hostility which the Company's servants felt towards those who sought to curb their rapacity was able to cloak itself under the specious pretext of regard for the interests of the natives, whom they represented as groaning under a new, and to them exceptionally terrible, form of legal oppression.

The revenue court, or Sudder Diwani Adalat, had various "provincial councils" distributed throughout the districts into which for fiscal purposes the country was divided, and these provincial councils exercised an ill-defined jurisdiction in other than matters of revenue. This the court did not attempt to interfere with, but they claimed to rehear cases tried before the provincial councils wherever there was *primâ facie* ground for suspecting corruption. The celebrated Patna cause was an appeal of this kind. Into the merits of the case it is not necessary to enter. It is sufficient to say that the court came to the conclusion that a judgment in a partition matter instituted before the Patna council had been obtained under such circumstances as warranted their intervention, the council never having tried the case at all, but having delegated their functions to three subordinate officials—viz., a Cazi and two Muftis—who had acted with great brutality in enforcing their award. One of the defendants was a farmer of the revenue, and pleaded to the jurisdiction, but the plea was disallowed and the case was reheard, and after a trial of ten days a written judgment was given for the plaintiff, the damages being assessed at three lakhs of rupees. Against this judgment no appeal was entered until 1784, and then the real appellant was the East India Company. The appeal was referred to a committee of the Privy Council, but was ultimately abandoned. But though the Company thus betrayed their own want of confidence in the justice of their cause, they were able by diligent misrepresentation so to distort the facts as to create in the popular mind a very strong feeling of indignation against the court.

"The Patna cause," says Sir James Stephen, "was represented to the British public thus:—Three harmless, upright, and venerable, or at least eminently respectable, native judges, were, by the wicked tyranny of hateful English lawyers, dragged from their home at Patna to the court at Calcutta, and there for merely doing their duty as they understood it,

condemned upon the strength of a wretched scrap of law Latin—part of the detestable stock-in-trade of their vile oppressors—to pay damages to the extent of about £34,000, or in default to lie in a loathsome dungeon for the rest of their lives."

The "wretched scrap of law Latin" referred to is the maxim *delegatus non potest delegare*, a maxim ridiculed by Bentham as a "fallacy of rhythm," but which, if a fallacy at all, would be more aptly described as a fallacy of jingle. In truth, however, it is no fallacy, but a very sound principle, though one which, like most other legal principles, is subject to large exceptions. It formulates in general terms an injunction to trustees not to delegate their duties, on pain of being answerable for any loss that may be occasioned by such delegation. Of course there are cases of everyday occurrence in which it is lawful for a trustee to delegate the performance of this or that special duty to some expert; but the general principle remains intact, that a trustee should see personally to the discharge of the trust which has been reposed in him; and if there is one species of trustee on whom the principle is more binding than another, it is certainly the judge. There are matters of detail, such as the taking of accounts, which a judge is entitled to devolve upon subordinate officials; but if an English judge were to delegate the decision of a cause to a master or registrar, unless by consent of all parties, or in pursuance of statutory authority, the proceedings would be null and void. Owing to the neglect of this principle, it seems to have been the case that the provincial councils were *de facto* non-existent as courts of justice throughout the Presidency of Bengal, and that though there was a nominal appeal to the Governor-General and Council in the Sudder Diwani Adalat, that body never heard any appeals, so that except through the Supreme Court there was practically no justice to be had. This would, of course, have been no ground for punishing the subordinate officials so long as they acted *bonâ fide*; but in the case in question the court found that the Cazi and Muftis had grossly abused their power. Such being the facts, how came it that Mill gave so totally misleading an account of the Patna affair? Mr. Justice Stephen answers thus:—

"James Mill," he says, "by the almost affected dryness and severity of his style and by the extreme harshness of his censures on others, has acquired a reputation for the accuracy and rigid justice which would be necessary to justify his judgments. It by no means follows, however, that a man is just because he is severe upon others, or that he is accurate because he is dry. Mill's assertions as to the Patna cause are false, and I think I can point out the origin of their falsehood. The subject is dry and intricate, and I believe that seeing that the greater part of the judgment of Impey, and the letter of Bogle, which together fill seventy large folio pages, referred to matters of detail which it was unnecessary for him to study, he either skipped them altogether, or, as I rather think, slightly glanced at all events at Bogle's letter. He then constructed an account of the case out of the notices of justification and Impey's interlocutory judgment, both of which he misrepresents, introducing into the notices of justification matter which they do not state, but which Bogle advances as an argument in support of the case set up by them, and entirely suppressing all the important part of Impey's judgment.

"A comparison between the matters stated above and the following extract from Mill, which is his summary of the case, will make this plain. After giving a summary of the notices of justification, which I pass over, he says:

"'This defence, which to the eye of reason appears appropriate and irrefragable, the court treated with the utmost contempt, and upon a ground which raises surprise and indignation. A form of words, among the numerous loose expressions which fall from the lips and pens of English lawyers, without any binding authority or any defined and consistent application, occurred to the judges. This was the phrase *delegatus non potest delegare*—"he who is delegated cannot delegate;" and upon this and no other reason so much as alleged they decreed that the Cazi and Muftis for acting regularly, acting as they were obliged to act, and had in fact been accustomed to act ever since the jurisdiction of the country had passed under legal control, were liable to actions of damages at the suit of every person whom their proceedings displeased.'"

Here we have the genuine utterance of sour English radicalism—the radicalism of temper and suspicion as distinguished from that of high principle—ever credulous of evil where English officials are concerned, and too lazy or too unscrupulous to ascertain the facts.

Macaulay, who appears to have implicitly trusted James Mill, and made little or no independent research, and who inherited the old Whig tradition as to Indian affairs, was apparently fully persuaded that the chief justice was an

inhuman monster, revelling in oppression for its own sake, and that the administration of justice by the Supreme Court was "a reign of terror heightened by mystery," in which "men of the most venerable dignity, persecuted without a cause by extortioners, died of rage and shame in the gripe of the vile alguazils of Impey," and in which "noble Mahommedans shed their blood in the doorway while defending, sword in hand, the sacred apartments of their women." That portion of the essay on Hastings, in which this "reign of terror" is described, is examined by Sir James Stephen almost sentence by sentence, with the result of showing that it is not sober history, but a romance founded upon the very slightest substratum of misunderstood fact.

The following is a typical instance. With reference to the crisis of the conflict between the court and the council, Macaulay writes:—

"The Government placed itself firmly between the tyrannical tribunal and the people. The Chief Justice proceeded to the wildest excesses. The Governor-General and all the members of Council were served with writs calling on them to appear before the king's justices, and to answer for their public acts. This was too much. Hastings, with just scorn, refused to obey the call, set at liberty the persons wrongfully detained by the court, and took measures for resisting the outrageous proceedings of the sheriff's officers, if necessary, by the sword."

The commonplace facts which this rhetoric conceals are that the zemindar of Cossijurah, being sued for debt in the Supreme Court, absconded, whereby the Company were deprived of his services in the collection of the revenue. On this the council consulted the Advocate-General, Sir John Day, who, after stating that in his opinion the construction placed by the court upon the Regulating Act was erroneous, advised "that in the case now referred to, the zemindar have notice that not being subject to the jurisdiction he shall not appear, or do or suffer any act which may amount on his part to a recognition of the authority of the judicature as extending to himself." This advice the council followed, and the zemindar not only ignored the court but successfully resisted its officers by force, when they attempted to arrest him for contempt. The court then issued a writ of sequestration against his property, but

the sequestrators were arrested by a force of sepoys, acting under the orders of the council. Attempts to attach the officer in command of the detachment were also resisted by force; the creditor of the zemindar then sued Hastings and his colleagues, who at first entered appearances, but subsequently, with the exception of Barwell, withdrew them, and announced their intention of resisting the process of the court by force. These events happened in 1779 and 1780, the ugly truth being that the council, finding the collection of the revenue hampered by the proceedings of the court, had at last determined to shake off its control entirely. That Impey had no course open to him but to act as he did is perfectly clear, yet this conduct was one of the grounds of his impeachment, and the sole foundation for the statement of Macaulay that the "chief justice proceeded to the wildest excesses."

But though compelled to give way to the superior force of the council, the court had won a moral victory. This appeared in the establishment, in 1780, of a system of provincial exchequer courts presided over by English officials, under the ultimate control of the Sudder Diwani Adalat, or Court of Exchequer, which was now restored, having apparently been in abeyance for years, as a court of both appellate and original regulative jurisdiction. Of the court thus newly constituted, Impey was asked and agreed to become the chief at a salary of £6500 per annum. This transaction furnished the pretext for Impey's recall, and has been generally regarded as thoroughly corrupt. In truth, however, it seems to have been an expedient devised by Hastings to extricate the court and the council from a very difficult position. The task of supervising, and if necessary reforming, the administration of the district exchequer courts could not, as Hastings acknowledges in an important minute recorded in the Secret Consultations on September 29, 1780, be efficiently performed by the council, or by "any body of men or individual agent not possessing in themselves some weight independent of mere official power." The Chief Justice was therefore beyond question the person most fit for the place. Nevertheless, it is clear that Impey ought not to have accepted any salary from the Company. In fact, he did attach a kind of qualification

to his acceptance of it. Thus, in April, 1781, he wrote to the Lord Chancellor, mentioning his new office and the salary attached to it, and adding, "This I have received, but shall be ready to refund it, if you or any of his Majesty's Ministers shall intimate to me that it is improper I should retain it;" and in the ensuing July he wrote to the council to the effect that "he should decline appropriating to himself any part of the salary annexed to the office of judge of the Sudder Diwani Adalat till the pleasure of the Lord Chancellor should be known." The counsel consulted in England by the Company as to the legality of the appointment were divided in opinion, Dunning and Wallace advising in one sense, and Mansfield and Rous in another. In these circumstances it is only fair to give Impey the benefit of the doubt. This is the last of the charges against Impey which relate exclusively to him; the remaining two implicate Hastings also, and constitute the real grounds upon which his impeachment was moved. They are (1) Nuncomar's case; (2) the case of the Lucknow affidavits. In answer to the very grave charge relating to Nuncomar, Impey was at his request heard at the bar of the House of Commons, on February 4, 1788; evidence was subsequently taken by a committee, and the question whether the charge contained matter for impeachment was debated in April and May following, and decided in the negative by seventy-three votes to fifty-five. As, however, in the case of the other charges, which were abandoned when this broke down, so here historians have done grievous injustice to Impey.

The charge insinuated rather than expressly stated in the first article, was briefly to the effect that Hastings, having been accused by Nuncomar before the council of various peculations and other corrupt practices, and having endeavoured to defeat the accusation by dissolving the council, and also by prosecuting Nuncomar for conspiracy, made a "direct attack" on Nuncomar's life by having him prosecuted in the Supreme Court, "for a forgery said to have been committed by him five years before;" that the Chief Justice, knowing the true motive of the prosecution, became "in effect the abettor and instrument" of Hastings in this attack, in that, notwithstanding

he knew that the court had no jurisdiction to try the case, he permitted it to be tried by a jury of British subjects, summed up with great partiality in favour of the prosecution, passed sentence of death upon the prisoner, though forgery was not a capital offence by any law in force in India, refused to allow an appeal, refused to grant a respite. The point as to the jurisdiction turned on the question whether Nuncomar was or was not an inhabitant of Calcutta at the time of the alleged forgery, and as it was not seriously argued that he was not, was abandoned. The question of Impey's conduct during the trial is elaborately examined by Sir James Stephen, who minutely analyses the evidence and Impey's summing-up, showing that the case turned upon the credit to be attached to one of Nuncomar's witnesses, who gave his evidence in such a manner as to raise a very strong presumption that he was perjuring himself; that, though the defence was conducted by the most eminent counsel then in Calcutta, and the counsel for the Crown were incompetent, Impey relaxed the strict rules of procedure and evidence in favour of the prisoner, gave him in his summing-up the benefit of every doubt, and pressed upon the minds of the jury every point that told in any measure against the prosecution; and that neither he nor any of his colleagues used any expression "which could have the least tendency to persuade the jury to find a verdict of guilty, or to intimidate them, had they been capable of intimidation, into finding such a verdict."

That the judges refused to allow an appeal is true, but it is also true that the only petition which was presented to them in that behalf alleged no specific reason why the appeal should be allowed, probably because Farrer, Nuncomar's counsel, knew of none. That they refused a respite is also true, but it appears that the jury did not recommend the prisoner to mercy; that the foreman, when applied to by Farrer, refused to sign the petition praying a respite, and that only one of the jury could be induced to do so. This petition having been presented and rejected, Farrer endeavoured to persuade the council, who had at first been strongly biassed in favour of Nuncomar, to interfere in his behalf; but they refused, with some show of indignation, to move in the matter, as they

in common with the vast majority of the inhabitants of Calcutta were fully convinced of his guilt.

Doubtless, if the judges had had any doubt either of his guilt or of their power to sentence him to death, it would have been their duty to reserve the case for the consideration of the Privy Council. There is no evidence that they entertained, or had reasonable ground for entertaining, either of these doubts. The jury had found Nuncomar guilty after a prolonged investigation, and his counsel did not suggest that the verdict was against the weight of evidence; neither did he raise the point, which has since been much debated, whether the statute 2 Geo. II. c. 25, under which the indictment was laid, and which made forgery punishable with death, was in force in Calcutta. The point, however, was raised by one of the judges (Sir Robert Chambers), who expressed a doubt whether the condition of society in Calcutta was sufficiently similar to the condition of society in England to render that statute applicable. And on this point much evidence was taken, most of the principal inhabitants of the town being examined as to the "state of commerce, paper currency, and credit" there, with the result that the court was unanimous in holding that there was no sufficiently marked difference between society in Calcutta and society in England in respect of commercial transactions to render the statute in question unsuitable for Calcutta. Another question —viz., whether that statute had been introduced into Calcutta before 1773—was not raised. Had it been raised and properly argued, it would certainly have been the duty of the court to reserve the case.

With regard to this question two principles appear to be well established: (1) that when a territory is acquired by British subjects, whether by treaty or by conquest, it is within the prerogative of the Crown to introduce English law into such territory by letters patent or charter; (2) that no Act of Parliament passed subsequent to the date of such letters patent or charter will extend to such territory unless by express enactment. Now as the statute 2 Geo. II. c. 25, under which Nuncomar was tried, was passed in 1729, unless English law was introduced into Calcutta between 1729 and

1770, when the forgery was alleged to have been committed, the court had no jurisdiction to punish forgery with death. The prevailing view on this question has been that the introduction of English law into Calcutta took place in 1726, when by royal charter a mayor's court was established there, and the governor and certain members of the council were constituted justices of the peace, with power to try all crimes except high treason; and that a new charter granted in 1753, in substitution for that of 1726, did not import any new law into the settlement. This view Sir James Stephen does not accept, though he cannot be said decidedly to reject it. He observes:—

"The question, therefore, is this: at what time was the criminal law of England, so far as it was suitable to local circumstances, introduced into Calcutta? Was it introduced in 1661 by the letters patent of Charles II.? or in 1726 by the letters patent by which the mayor's court was established? or by the letters patent of 1753, which were issued when the patent of 1726 was surrendered? or in 1774, by the charter of the Supreme Court? If I were to consider this question wholly apart from the later decisions bearing upon it, I should say that it was originally introduced to some extent in 1661, but that the later charters of 1726, 1753, 1774, must be regarded as acts of legislative authority, whereby it was reintroduced on three successive occasions, as it stood at the three periods mentioned."

It is curious to find Sir James Stephen suggesting that the introduction of English law into Calcutta may have taken place in 1661, as the place was at that date an obscure village, shunned by all Europeans on account of its pestilential climate. A factory was, however, established there in 1686, but it is unlikely that English law was then introduced in such a sense as to make natives amenable to it, except so far as they were in the employ of the Company. The true introduction of English law must unquestionably be referred to 1726. Whether the new charter of 1753 had the effect of importing statutes passed since 1726, is a question which must depend upon the wording of the instrument. If the new charter was substantially a mere renewal of the old, it is difficult to see why it should in any way alter the state of the law. This is a point which, as it seems to us, Sir James

Stephen has not sufficiently considered. We therefore incline to the opinion that the statute under which Nuncomar was tried was not as a matter of law in force in Calcutta until after the date when the forgery was alleged to have been committed, and therefore, according to modern notions, the indictment would have been bad. The rule, however, that no statute has retrospective operation unless by express enactment, does not seem to have been thoroughly established as a principle of law until the present century, and the judges therefore cannot fairly be blamed for not acting upon it in Nuncomar's case; nor was the point raised by his counsel, or in any way referred to throughout the proceedings. In any case, the responsibility for refusing the respite was shared by Impey with his colleagues, of whom two, Hyde and Chambers, were still living in 1787, but whom it was never proposed to impeach.

Such being in naked outline the facts of the case, the question arises how came it that so grave an accusation was ever founded upon them, and that the charge was made against Impey alone? Fortunately there exist ample materials for the answer to this question. Of the four members of council enumerated by the Regulating Act in 1773, three—viz., Francis, Clavering, and Monson—constituted themselves, immediately on their arrival at Calcutta, into a faction hostile to Hastings, and as the Governor-General had not then power to override the decision of the majority of the council, he found himself with Barwell, the fourth member, in a perpetual minority. The triumvirate heard with unconcealed satisfaction various charges of official corruption by Hastings which were laid before the council, and which Hastings met, as it appears to us, quite justly, by dissolving the council and bidding the informers take action elsewhere. The proper forum for such accusations was unquestionably the Supreme Court. Hastings could not be expected to preside over a council before which he was arraigned as a delinquent, nor to vacate the chair and consent to be tried by men who had had no experience in the exercise of judicial functions, were entirely new to the country, and were bitterly prejudiced against himself. The last of these charges was contained in two letters

laid before the council on the 11th and 13th of March, 1775, in which Nuncomar stated that he had bribed Hastings with a gift of 104,105 rupees, to procure the appointment of his son, Rajah Goordass, to a certain important post at Moorshedabad, and had paid him two further sums of 100,000 and 150,000 rupees on account of Munny Begum, the widow of Mir Jafir. A motion by Monson on March 13, that Nuncomar should be summoned before the council, being carried, Hastings promptly declared it dissolved, and withdrew with Barwell. The triumvirate, however, held an informal sitting, in which they made a pretence of examining Nuncomar and some others. In fact, however, they accepted Nuncomar's word for the receipt of the sums by Hastings, and assumed the authenticity of a letter which he produced and which purported to be Munny Begum's authority to him to make the payments on her account on the strength of its bearing her seal. She was not called. The investigation was a mere farce. It was concluded the same day; a minute being entered in the Secret Consultations to the effect that

"it appearing to the Board that the several sums of money specified in Maharajah Nuncomar's letter of the 8th of March have been received by the Governor-General, and that the said sums of money do of right belong to the Honourable East India Company—Resolved that the Governor-General be required to pay into the Company's treasury the amount of those sums for the Company's use."

The case which the triumvirate had thus speedily determined was subsequently submitted to counsel, who did not recommend any prosecution in India, but advised the Board to transmit it with the evidence to the Company, which was accordingly done. It was then submitted to the Company's counsel in England, who agreed in advising that as it stood "it could not possibly be true;" and no steps were ever taken by the Company upon it.

On April 20, 1775, one Commaul Uddien laid an information before the judges against certain persons, including Nuncomar, charging them with having conspired to extort from him by violence an accusation of corrupt practices against Hastings and Barwell. It appeared that this charge had originally been communicated by Commaul Uddien to Hastings, who had

referred him to the court. It resulted in an indictment being laid by Hastings and Barwell in the following June. The charge broke down as regards Hastings, but was prosecuted to conviction by Barwell. Meanwhile, however, Nuncomar had been arrested, tried, and convicted, on the charge of forgery. The triumvirate thought fit to regard Hastings as actuated in the first prosecution by a mere desire to discredit Nuncomar, and as the covert maintainer of the second. They publicly visited Nuncomar on the day after Commaul Uddien's information was laid before the judges; and after his arrest on the charge of forgery, they sent Impey a petition, which Nuncomar had addressed to them, praying, as it would seem, to be released on bail, on the ground of his high caste, with a verbal request that Impey would see it granted. Impey granted certain relaxations of the prison discipline, which, in the opinion of some pundits whom he consulted, would prevent the prisoner suffering any loss of caste, and administered a polite rebuke to the triumvirate.

"I am happy," he wrote, "that the Board has given me an opportunity of vindicating the judges from any surmise of rigour or want of humanity, but must make it my request that the Maharajah may be acquainted by the Board that if he has any further application to make for relief, that he must address himself immediately to the judges, for should he continue to address himself to the Board, that which will and can only be obtained from principles of justice may have the appearance of being obtained by means of influence and authority; the peculiar turn of mind of the natives being to expect everything from power and little from justice."

This temperate and dignified reproof appears to have been much resented by the triumvirate, who, on the 16th of May, recorded in the Secret Consultations a minute to the effect that "the prosecutions lately instituted against the Rajah Nuncomar are attended with circumstances that deserve the attention of the Court of Directors. If it be observed that he is the principal evidence against the Governor-General, the measures taken to compass his destruction may be easily accounted for." The minute then proceeds to give an entirely misleading account of the prosecution for conspiracy, which was still *sub judice*, and continues:—

"This attempt to discredit the evidence of the Rajah, not answering the purpose it was intended for, he was a few days after taken up on a charge of forgery and committed to the common gaol. The Rajah is not only a man of the first rank in the country, but a Brahmin of a very high caste, and, according to the tenets of his religion, entertains an opinion that he would lose his caste or suffer an indelible stain were he to eat where he cannot perform his ablutions. He desired only that, since they had thought proper to dishonour him in the eyes of all India, and contaminate him by such infamous confinement, they would at least permit a tent to be pitched without the circuit of the prison, or suffer him to be led every day to the side of the Ganges, to perform his usual ablutions and say his prayers. This request was denied him, though the consequence of it was generally known and expected. He remained eighty-six hours without taking any sustenance whatever, or drinking any water. Representations were made repeatedly to the judges, who contented themselves with taking the opinions of the pundits provided by the Roy Royan. Even these men, however, were obliged to declare that if the Rajah eat in the place where he was confined, he must perform various penances before he could be absolved. The old man did not think life worth preserving on these terms. At last the judges were obliged to give way and permitted a tent to be pitched for him, where he berformed his ablutions. As for ourselves, though we may have reasons to believe him innocent of the charges brought against him, we shall not urge our opinion in his favour, which would be useless to him and might be charged with partiality. If he be subject to the jurisdiction of the court, we do not doubt that, notwithstanding the power of his persecutors, an English jury will give him a fair trial."

The insinuation conveyed in the above minute that the judges refused to relax the prison discipline in Nuncomar's case, though they knew he was abstaining from food, is entirely groundless. They refused to admit him to bail or to change the place of his confinement on the mere ground of his caste; but the first they heard of his fasting was from his own petition, upon which Impey at once sent his own medical man—Sir Roderick Murchison—to examine him. Sir Roderick was decidedly sceptical as to his having fasted eighty-six hours, stating in his affidavit that he exhibited none of the appropriate symptoms, and as he had been frequently in private with his friends during the period of the alleged fast, and his ordinary diet consisted of sweetmeats, he may well have eaten, though the jailer had never seen him do so. How thorough a revolution the trial and conviction of Nuncomar

had wrought in the minds of his patrons is apparent from the fact, already adverted to, that they declined to present to the court the petition which Farrer had drawn up, though the day before he broached the matter to them (August 1) Francis had received a letter from Nuncomar himself, earnestly soliciting his influence. It is clear, or at any rate most charitable to suppose, that by that time they all believed in his guilt.

Further, the day before the execution, a paper was sent by Nuncomar to Clavering, which he, supposing it to be a request for intercession, and, "being resolved not to make any application in his favour," left unread until after the execution. On August 14, nine days after that event, Clavering having in the meanwhile possessed himself of its contents laid it before the council. The paper was a somewhat rambling document, but it contained an insinuation that the prosecution for forgery had been set on foot by Hastings to screen his own malpractices, and a positive assertion that the judges had condemned him to death against the weight of evidence, and "out of enmity and from partiality to the gentlemen who have betrayed their trust." Hastings and Barwell were for sending a copy of the document to the judges, but the rest of the council would not agree to this, and suggested that the original and all translations should be destroyed, as being of "a libellous tendency" and containing "unsupported" assertions, and that the minute of it which had been entered in the Secret Consultations should be expunged, and it was ordered accordingly. The petition itself was burnt by the jailer, and all translations appear to have been destroyed, except one which Hastings secretly kept and gave to Impey, and which subsequently proved very essential when the Chief Justice was on his defence in 1788.

The importance of these facts lies in the proof they afford that at the date of Nuncomar's execution nothing was further from the minds of the triumvirate, bitterly hostile though they were to Hastings, and by no means well disposed towards the court, than to suspect the judges, or even the chief justice, of having conspired with Hastings to commit a judicial murder. Doubtless they still believed that the prosecution was really the work of Hastings, but of Nuncomar's guilt they entertained no doubt, and their feeling against him was the stronger

because they had at first believed him innocent, and had strained their relations with the court in his behalf. Moreover, in January 1776, the triumvirate entered a minute in the Secret Consultations in which they severely reflected upon the administration of justice, but without charging or even insinuating that the judges were capable of corruption. The burden of the minute is the excessive zeal of the judges in doing what they conceived to be their duty, and in particular in calling the servants of the Company, and even members of the council, to account for arbitrary acts.

"According to the doctrines maintained by the judges (so runs one particularly naïve sentence in this very curious document), there is scarce any act of government, however necessary or expedient, which, if it tends to control the actions or thwart the interests of individuals, may not expose the members of the council to actions in the Supreme Court; we even doubt whether we are authorized to prevent any person from quitting the provinces and going up the country, though we should be certain of their intention to enter into the service of a foreign Power."

At this date the triumvirate were in possession of all the evidence which has ever existed in support of Nuncomar's accusation—*i.e.*, strictly speaking, none at all. Of the charge itself, nothing was heard for thirteen years. The reason is not far to seek. Francis was then the sole surviving member of the triumvirate; had fought a duel with Hastings, in which he had been severely wounded; and had come to cherish so cordial a hatred of Impey as rendered him by his own avowal unfit to be a member of his impeachment committee. It appears that he had been cast in an action brought against him by a gentleman named Grand, for seducing his wife. The case was tried before Impey, Chambers, and Hyde, without a jury. Chambers thought the evidence insufficient, but Impey and Hyde found for the plaintiff, and the damages were assessed at 50,000 rupees. Probably Francis attributed Hyde's concurrence in the verdict to the malign influence of Impey. That he was guilty is probable from the fact that Mrs. Grand subsequently became his mistress, but his discomfiture, though hardly sufficient to account for the malignant hatred which he avowedly cherished towards Impey, may not improbably have helped to engender it.

Brooding over his wrongs, or fancied wrongs, he may have really come to take a view of Nuncomar's case totally different from that which he entertained at the date of the execution; may have really believed the trial to have been a judicial murder. Anyhow, he contrived to instil this belief into the minds of Burke, Fox, and Elliot, thus enlisting on his side both the biassed philanthropy and the bigoted party spirit of the age. That both Fox and Elliot emphatically believed in Impey's guilt is perfectly clear, yet never was belief founded upon less evidence. Evidence, in the strict sense, there literally was none. There was a superficial air of plausibility about the story, which vanished as soon as it was examined. Thus, the alleged conspiracy between Impey and Hastings rested simply upon the coincidence that the prosecution of Nuncomar for forgery took place while criminal proceedings, to which Hastings was a party, were pending against him. It is in the last degree improbable that Hastings had anything to do with the former prosecution, which grew naturally out of an extremely intricate civil cause, a cause which had been dragging its slow length along in the Sudder Diwani Adalat since 1772, of the merits of which Hastings was in all probability entirely ignorant, and which was so far from certain to succeed that it all but broke down through a conflict of evidence. He was far too astute a person to play so risky a game. Moreover, he had not time to play it, even had he been so minded.

"Nuncomar's attack upon Hastings was made on March 13. All sorts of contrivances, consultation, study of native documents, books of account in various languages in an imperfect state, would be necessary before a prosecution could be entered upon. But, till April 24, the deed alleged to be forged was in the custody of the court, with many other papers on the case. About this time they were delivered to Mohun Persaud (the prosecutor), and Nuncomar was arrested on May 6. How was Hastings, who was previously ignorant of the dispute, to get it up and prepare to commence proceedings in the course of ten or twelve days? There is not the smallest proof, there is not even a suggestion, that Hastings ever made any such investigations personally, or by a solicitor. In the trial for conspiracy, Hastings was examined as to his connection with the prosecution for forgery. He emphatically denied it. No question was asked as to whether he had made any such inquiries as must have been

made, whether he had employed or advised with any solicitor, or whether he had paid or guaranteed the expenses; whether he had taken any steps to get up evidence, &c. In short, no one act or omission on his part was alleged, or suggested by the counsel who cross-examined him, to show that, notwithstanding his denial, he in fact was the 'real mover' in the prosecution. In so small a society any such proceedings on his part would have been reported to the parties concerned, and might have been brought to light by cross-examination."

This seems tolerably conclusive, yet Macaulay could write in entire recklessness: "The ostensible prosecutor was a native. But it was then, and still is, the opinion of everybody, idiots and biographers excepted, that Hastings was the real mover in the business."

The last charge against Impey—viz., that of conspiring with Hastings to plunder the princesses of Oudh—rests wholly upon the fact that by Hastings' direction Impey did in 1781 proceed to Lucknow, and there took some forty-three affidavits in Persian, Hindustani, and English, relating to the behaviour of the princesses during the rebellion of Cheyte Sing. With curious ignorance Macaulay finds something very suspicious in the fact that Impey did not read the affidavits in question. As a matter of fact, those who make a regular business of taking affidavits never do read them, as to do so would be a waste of time; and Impey merely followed their example. Had he done otherwise there might have been some colour for the suggestion that he only allowed such to be sworn as were unfavourable to the princesses. As it was, for aught Impey knew to the contrary, the effect of the evidence he was perpetuating might be to clear the princesses of every kind of suspicion. Moreover, an examination of the affidavits shows that only ten of them so much as mention, or even refer to, the princesses, and none of them relate specifically to them. In truth, the affidavits were taken, for the simple reason assigned by Impey himself—too simple to be accepted by partisan writers—to afford evidence in support of the narrative of the revolution at Benares which Hastings was then writing, and which both he and Impey foresaw would hardly be accepted in England upon Hastings' sole authority. Of the causes which produced that revolution Impey had probably no accurate knowledge, as he was not summoned to Benares

until it had been suppressed; in any case, how far he approved or disapproved of Hastings' policy towards Benares and Oudh we have no means of knowing; but the plan of taking a multitude of affidavits, all voluntarily sworn, and most of them by native witnesses, would seem hardly likely to commend itself to two conspirators in search of a pretext for a meditated crime. Impey's case is an impressive example of the ease with which philanthropy can be manipulated for base purposes. Burke and Elliot were dupes and tools of Francis. That they were actuated by a sincere regard for the welfare of the native Indian races there can be no doubt; as little doubt as that in the case of Impey, at least, their hostility was directed against one who during his tenure of office had consistently, and not unsuccessfully, sought to give practical effect to the principles which they professed. They looked at all things Indian through a refracting medium of preternatural suspicion. They were on the alert for the discovery of some diabolical plot in every transaction, rejecting with scorn the plain and straightforward interpretation.

Mark Pattison, we believe, suggested as a succinct description of the eighteenth century *saeculum rationalisticum*. There is probably as much truth in this as in other similar neat phrases; but far more remarkable than its rationalism was, to our thinking, the sentimentalism of the eighteenth century. By sentimentalism we mean the habit of obeying emotion rather than reason in practical matters. Such sentimentalism is indeed one of the inevitable results of scepticism; for as soon as a man begins to doubt of the power of his reason to apprehend the truth, and its authority to direct his conduct, he is left at the mercy of his passions, or his "sentiments." Now the eighteenth century with all its rationalism had remarkably little faith in reason, either as an instrument for the discovery of truth, or as a vehicle of the moral law. It sought reality in sensation, and substituted for conscience a "moral sense." Hence the strange moral flabbiness of the age, its self-indulgent shrinking from contact with reality. In this respect both Burke and Elliot were true sons of their age. The first impression which a reader of the articles of impeachment against Impey drawn by Elliot, but

closely modelled upon those which Burke had exhibited against Hastings, is that the author must have been a thoroughly disingenuous and malignant person. Such a judgment, however, would be grossly unfair. The truth is simply that both Burke and Elliot were so intoxicated by sentimentalism, that they were incapable of allowing to their illustrious victims the same fair-play which any vulgar criminal expects and receives.

Art. IX.—AMERICAN SCHOOLS.*

IN our former article on "American Schools" we explained the nature and origin of the fallacies on this subject which have prevailed in England, and also the special conditions, social and climatic, under which the American schools have had to work, and by which their character has been largely determined. We showed, in particular, how these conditions had of necessity limited and embarrassed in their organization and working the rural schools of the country, which are the majority, and in which the largest number of the citizens receive the whole of their school education. We quoted a circular, issued by the Bureau of Education at Washington, setting forth the deficiencies of these schools—schools completely unorganized, and taught by casual and quite untrained teachers. We showed, on undeniable evidence and authority, that as a rule the teachers of American schools, including in this statement city as well as rural schools, have received no regular training, the normally trained forming only a very small proportion of the whole, not to be estimated higher than 5 per cent.; one among several reasons for this fact being the insufficiency of the salaries paid, especially to male teachers, and another reason being the mode of the appointment of teachers by necessary annual election—annual election by bodies notoriously open to personal, to partisan, and to political

* For list of principal authorities on American education, see the article on the same subject in the last number of this Review. To these authorities may be added Kiddle and Schem's *Cyclopædia of Education* (New York).

influences. We explained the conditions of social pressure which had not only filled banks and public offices and city stores with women, but had flooded the public schools—mostly mixed schools—with female teachers. We showed, furthermore, that at length the tide of public favour with which this movement of female enterprise had been welcomed in the States, especially in New England, had begun to turn, and even Dr. Philbrick himself had insisted on the superior fitness of male teachers for teaching boys no longer of tender years, if male teachers were only to be had.* We traced the common schools of New England to their actual origin in Massachusetts and by decree of the Council in 1647; and we explained the nature of the school-district arrangement, which was established as a universal principle by a sort of "common law" throughout the whole of New England, and afterwards, though with some modifications, in the other States of the Union.

In the after-part of the present article we shall direct attention chiefly to the subject of the organization and range of instruction in city schools, and to the general results of American school education. But we have first to add two other items to our statement of the general conditions affecting the public schools of the States. Of these, the first is not indeed a universal condition, but it is so general as to be characteristic of the country and of the people. We refer to the mixed character of the schools. In England our infant schools are usually mixed, and the mixed system has extensively prevailed in British and Wesleyan schools, and also in small village schools belonging to the Church of England. But few of the children in these schools are as much as thirteen years of age. There is a growing doubt also in our large towns as to the desirableness of the mixed plan. Where the children are in the habit of staying at school in

* When we wrote our former article we did not know that Dr. Philbrick had recently finished his honourable course, his last contribution to the cause of education having been the Report on City Schools prepared for the Washington Bureau, to which we were much indebted in writing that article. The *Journal of Education* (Boston and Chicago) for last February 18, has been sent to us, filled with tributes to the memory of Dr. Philbrick. He died at his country-house, Danvers, Massachusetts, on February 2, being in his 68th year.

considerable numbers beyond the age of twelve, the rule prevails more and more that the schools should be separate for the sexes. Above the public elementary schools mixed schools are unknown. In America, on the other hand, public schools of all grades, including the high schools and city colleges, are commonly organized on the mixed principle. Not, indeed, universally; in New York and other of the larger cities, both Eastern and Western, the majority of the schools are separate for the sexes, and the movement in this direction is growing. Even in Massachusetts a powerful reaction has set in against "co-education," headed by medical men of the highest distinction, and by eminent clergymen. In the writings of the leaders of this reaction, sometimes in set volumes and sometimes in high-class journals, such as the *North American Review* and the *Atlantic Monthly*, the most fatal effects, both physical and moral, are attributed to the operation of mixed schools. They are held largely responsible for that demoralization of too many American women, which, beginning from Boston, with its publications on sexual relations—such as Mr. Justice Wills denounced with such just emphasis in his charge at a recent trial—has spread more or less throughout the Eastern States and the great cities of the Union. The late Professor Agassiz was one of those who held this view, and took an active part in opposition to the mixed system of schools in New England. Nevertheless, Americans generally appear still to hold to the mixed school principle; and even in New England the powerful attacks upon this principle seem as yet to have made no practical impression upon a system which had so long been regarded by New England with characteristic pride as one of the evidences of that advanced enlightenment by which the Athens of America, the "eye" of the United States, and with it the territory of which it has been the centre, has been signally distinguished in comparison with other parts even of the States, and especially as contrasted with the backward regions of the Old World. Whether, indeed, the demoralization to which we have referred, with the accompanying deterioration of feminine physique, and the growing decline of natural increase in the population of the most famous cities and

States of the Union, are really due to the mixed schools, there is reason to doubt. There are other causes for these results, of which the physicians and clergy of New England, after very long silence, have found themselves at length compelled to speak out in tones of profound shame and alarm. Supposing, however, that the root of the evil is to be found elsewhere, there can be no doubt that the system of mixed schools for youths and girls at the most susceptible period of physical development, and before the moral development has attained its full tone and power, in a country where personal liberty is so absolute and guardianship of young people is scarcely known, may have afforded much opportunity for the aggravation of the evil. It is with great reluctance that we have said anything at all on this subject. But it was impossible to keep silence on what is so principal a matter—a matter which touches so nearly the question of education—a matter of which some part at least of the meaning and the moral is disclosed in the more recent Census returns of the United States.

Among the "circulars of information" lately issued from Washington is one (No. 2, 1883) on this subject of "Co-Education." It is, however, unlike many of the Washington circulars, a very flimsy document. It explains, what will easily be understood, that in rural schools, where the population is small, where scholars are few, and all the population are neighbours and acquaintances, mixed schools not only are the natural but the only possible form of school, and that the working of such schools has, on the whole, been good and wholesome. Such schools, in fact, are the modern representatives of the early common schools of New England as they existed for two centuries and more, and their parallel on this side of the Atlantic may be found in the parish country schools of Scotland, as they were till modern changes came in and quite altered their character. But as respects the question of co-education in large cities, and among promiscuous populations living under the unsalutary social conditions of such cities in the States at the present time, no attempt is made in the way of analysis or discussion. It may be true, as the circular affirms, that in attendance at the common

schools "the rural children grow up into men and women who understand one another better and respect one another more than the people of other lands appear to do." It may still be true also, as in former ages, that "the sexual and social morality of the rural districts and small towns of the United States is very high"—a place that is not a city, but a town, and not a town of average size, but a "small town" in the United States, being in fact a place of only a very few thousand, or of less than a thousand inhabitants. But the real question is, how far in such cities as Boston, Chicago, or Cleveland it is desirable for youths and girls over twelve to be aggregated together by hundreds in common schools for the purpose of "co-education." The impression left on the mind by a study of the "circular," as likewise by reading the article on "Co-Education" in the *American Cyclopædia of Education*,* is that official prudence will not allow the Bureau to circulate any document opposed to the cherished traditions of New England educational theorists, but yet that the feeling against mixed schools under the conditions we have described is becoming formidably strong. It is significant that the circular warns other countries against following the example of the States in this respect. "Much caution," it is said, "should be exercised by communities existing under different conditions in adopting the American custom of educating the sexes together."

The circular gives a list of towns and cities in which "co-education" is practised—a very long list. It then gives a list of nineteen cities in which co-education is not approved, unless, it may be, for children in their earlier years. But it is remarkable that New York, Philadelphia, and Cincinnati are not to be found in either of these lists. The inference is, that these cities declined to make any response to the circular asking for returns and opinions. The position of them all in regard to this question is, in fact, notorious. They have abandoned New England ideas on this subject. New York, indeed, leads the Union in the opposition against "co-education." It is followed by Philadelphia, its rival in population;

* Kiddle & Schem's *Cyclopædia of Education.*

by Brooklyn, its sister city, with its 600,000 inhabitants; by Baltimore, with 340,000; Cincinnati, with 260,000; and New Orleans, with 220,000. In all these cities the principle of "co-education" is disapproved. In the great city of Chicago, which has been largely colonized from New England, the New England rule prevails. But it seems likely that considerations of economy in space and working, as well as New England ideas, may have had a powerful influence in a city which is so inadequately supplied with school buildings that many schools are doubled in their accommodation by having two sets of scholars, one set attending in the morning and the other in the afternoon. The New England view can hardly be more neatly summarized than it is by Mr. George Howland, writing on behalf of Chicago. He says: "Society includes both sexes. Discipline is easier, scholarship is better, and the sexes exercise a healthful influence over each other morally." On the other hand, the opposite view is briefly indicated by Mr. Henry Raab, of Belleville, in Illinois, the same State to which Chicago belongs. He assigns as reasons for separation of the sexes that it tends to promote "better discipline," and that "proper attention can be paid to the physical requirements of the girls at the critical period—maturity;" while the representative of Brooklyn writes that in that city the rule is separation of the sexes, unless the exigencies of the school require a different course. The reason assigned is, that teachers capable of instructing girls often fail in managing boys, and *vice versâ*; and he reports that "the only change in view is in the direction of a more complete separation of the sexes."

Dr. Clarke, of Boston, in his work entitled *Sex and Education*, is the most scientific and influential opponent of "co-education." "None," he says, "doubt the importance of age, acquirement, idiosyncrasy, and probable career in life, as factors in classification. Sex goes deeper than any or all of these." And again: "Appropriate education of the two sexes, carried as far as possible, is a consummation most devoutly to be desired; identical education of the two sexes is a crime before God and humanity, that physiology protests against, and that experience weeps over." On the other side are

several female authorities. Of these, one, Miss Anna C. Brackett, says: "The men generally approve of what Dr. Clarke has said; the women of largest experience condemn." Our opinion would be that the men will prove to be on the winning side, even in New England, after a while. In many other parts of the Union Dr. Clarke's view is already accepted. When, however, this view does prevail, it will mean that many more male teachers are to be employed than in the past, and that the cost of public school education to the thrifty New Englander, in the large towns, will be enhanced.

Another condition affecting American schools to which we must refer—not, indeed, as a necessary condition, imposed by circumstances beyond control, but as actually in force throughout the entire Union—is that the schools have everywhere become secular. The utmost recognition of religion ever allowed now is the bare reading, without comment, of a very few verses of Scripture. Even this practice is fast dying out. Religion and religious influence, in any effective form, are excluded.

This was not the case in the earlier years of American history. The school was distinctly connected with the Church; and the school teacher, if not himself the pastor of the church, as was sometimes the case, owned at least religious allegiance to the pastor of the church. This condition of things lasted for generations. The *régime*, indeed, in almost all the States was that of a Church and State establishment, and the school was part and parcel of the parochial Church organization. But during the present century, first there came disestablishment in State after State, a process which came to an end some sixty years ago. The school teacher then ceased to be part of the Church staff of the parish; he was no longer a quasi-ecclesiastical person. Presently the Irish element in the population grew into a political power of the first magnitude; and the Roman Catholics began to protest against the reading and teaching of the Bible in the common schools. Then the spirit of modern "liberalism"—the theories of politicians at a loss how to combine all classes of children, of whatever creed, in the schools, except on a secular basis—combined, for this particular purpose, with

the Roman Catholic political forces, to compel the exclusion of the Bible from the common schools of the nation. Thus the schools which, no longer ago than the visit to the States of De Tocqueville, were, and were noted by him as being, a distinctly religous force in the training of the people, have ceased to have any religious character. And yet there are some very remarkable exceptions to the otherwise universal rule. The Roman Catholics, while steadily opposing the common school system as a whole, and contending that, as in the Dominion of Canada, so in the United States, the Roman Catholic school tax ought in each school district to go to the support of Roman Catholic schools, have nevertheless in many neighbourhoods, largely peopled with Roman Catholic working men, made a good bargain for themselves with the Boards of Education. They do not seek to have the Bible in their schools, and they have transferred their schools to the local Boards of Education, on condition that their own teachers are employed, under the immediate supervision of their own clergy, that Roman Catholic symbols are allowed in the schools, and that the schoolrooms may be used for the purposes of catechetical instruction on week-days and Sundays. Arrangements of this kind are made, among other places, in various parts of the State of Connecticut, in New Jersey, in New York State and in New York city—notably in the Roman Catholic parish of St. Joseph's, New York, where the schools are under the charge of the "Christian Brothers." Thus the Roman Catholics, while maintaining their general protest against the secular system in the common schools, have used skill and diligence to make the best of their circumstances wherever an opportunity presented itself.

Meantime a reaction against the secularism of the common schools has set in, of which at present New York would appear to be the centre. From one cause or another the moral condition of the common schools is regarded by a large and increasing number of serious persons as far from satisfactory. A few months ago, indeed, a proposal was made, which did not seem too absurd to attract some attention from the public journals, although it was soon brushed aside as foolish and

unfit, that a public day of fasting and prayer should be set apart on account of the public schools and the children in them. That proposal was at least a sign of the serious point of view from which some religious persons regard the moral condition of the schools. What, however, is a really important indication of the tone of public opinion on the subject is the fact that, in a long and elaborate leading article, the *New York Christian Advocate*, the official organ of the American Methodist Church, has identified itself with the rising movement to restore the Bible to the common schools. The Methodist body in the States, unlike the Roman Catholics and the Protestant Episcopalian body, and much more distinctly and generally than the Presbyterian Churches, or any other religious denomination, has distinguished itself by its support of the common schools. Being the largest and most broadly popular of the churches, it has been more averagely and characteristically American than any other. Although (perhaps because) it is a non-political Church, it has been steadily swayed by the popular tide of general tendency, it has reflected as to the common schools the general sentiment. Forty, even thirty years ago, it upheld the principle of Bible instruction in the schools. Of late years, however, its voice in defence of the Bible in the school has been silent; it has, at least tacitly, acquiesced in the accepted secularism of the times. Some of its leading writers, indeed, have been understood to be convinced secularists so far as public school theory is concerned. It is the more notable, accordingly, that the official organ of the Methodist Church has, in an article which vindicates the distinctively Christian character of the Constitution and Government of the United States, lifted up its voice with no uncertain sound on behalf of the restoration of the Bible to the public schools.* It is at the same time a somewhat striking coincidence that just as this reaction against secularism has taken form and body in the United States, and among the Methodists of the States, a similar reaction has asserted itself in the Victorian province

* "Christianity and the State:" *New York Christian Advocate*, March 25, 1886.

of Australia, and that the Wesleyan Methodist Conference of that province, at its last annual session, pronounced against the exclusion of the Bible from the public schools of the colony. It is possible that the two movements, that in the United States and that in Victoria, may have a real relation to each other, a relation of something more than mere coincidence. There is strong sympathy and there are close connections between Victoria and the United States. Victoria has, in political arrangements and organization, in several conspicuous particulars, forsaken English precedents to follow those of the States. In particular, the ambitious and progressive Australian colony, in respect of its public school system, chose to separate itself not only from the mother country, but from its older neighbours, the colonies of New South Wales and South Australia. It is, therefore, really noteworthy that at the very same period a reaction against the secular principle in the public schools should be publicly signalized alike in the United States and in Victoria, at New York and at Melbourne. In passing it is proper to note that, whatever weight attaches to the arguments against school secularism in America or Victoria, more weight must attach to similar arguments in England. The schools alike in the States and in the Australian colony are schools for all classes, and, speaking generally, are middle-class schools. Indeed, if the Roman Catholic children, for whom special schools are generally provided by their Church, or else common schools specialized in the way already described, are made available, are omitted from calculation, it may be said that the children in the American public schools, with very few exceptions, are from classes corresponding with our English middle classes, the predominating elements being farmers' and storekeepers' children—children brought up to attend Sunday school and church. Still more strictly is it true that the Victoria public schools are schools for what in England would be regarded as middle-class children. But even in the case of schools for such classes, the exclusion of the Bible, and its moral authority and influence from the schools, is found alike in America and in Victoria to be a serious and threatening evil.

We have now completed the outline, begun in our former

article, of the general conditions which affect the working of American schools. We have not, indeed, referred specifically to the fact that the common schools have during the last quarter of a century become everywhere what is called "free" —that no fees, that is to say, are charged for attendance. But this is a fact too well known to require specific notice. It must, however, be borne in mind as the educational results of American schools are set forth. Many results are anticipated by the agitators for gratuitous education in this country, which are not found to have attended gratuitous education in America.

We shall now proceed to give a general view of the organization of city schools in the United States. It was shown in our former article that the rural schools of the States are, if not universally, with very rare exceptions, "ungraded schools." This is their specific characteristic. The city schools, on the other hand, are graded schools. It is necessary, however, here to explain precisely the meaning of epithets which are by no means distinctly understood in this country. We continually find language used which implies that "graded schools" are a speciality of America, and one of its educational distinctions. How curiously astray is this idea will appear from the passage we are about to quote from Kiddle and Schem's *Cyclopædia of Education.*

"Graded schools," says this authority, "are usually defined as schools in which the pupils are classified according to their progress in scholarship as compared with a course of study divided into grades, pupils of the same or a similar degree of proficiency being placed in the same class. An ungraded school, on the other hand, is one in which the pupils are taught individually, each one being advanced as fast and as far as circumstances permit, without regard to the classification of other pupils. Grades, however, are not to be confounded with classes: the former are divisions of the course of study, the latter are divisions of the school based upon uniformity of attainments. In a small school the same number of grades may be needed as in a large school, the course of study being the same; hence, as the number of classes must be smaller, it will be necessary that each class should pursue two or more grades simultaneously or in succession. On the other hand, in a large school the number of classes may be greater than that of the grades, which will necessitate the formation of two or more classes under separate teachers in the same grade."

From this it will at once be seen that *grades* is the American term equivalent to the English term *standards*, and that all the public elementary schools of England have always been graded schools, our inspected schools, even before formally defined *standards* were inserted in the Code of 1861, having been all conducted on the graded principle. It will also be understood that all good schools in England have always been graded schools. And yet, such is the virtue of a new word, coming from America, and used as an epithet of distinction and superiority in its application to the schools of great cities, that the writer of the very article from which we have quoted this plain account of grades and graded schools, misled by the mistaken and misplaced tributes of English admirers of American peculiarities, says in the last paragraph of the article: "Graded schools are far more numerous in the United States than in England or in most of the countries of continental Europe." Graded schools more numerous in the United States, where all the rural schools are ungraded, than in Germany! or than in England, where all rural schools under inspection, as well as all the town schools, have always been graded!

It will be seen from what has now been adduced that the question of graded schools stands in no relation whatever, as even some well-informed English educationists have imagined, to the provision of separate buildings for schools of different grades. All the grades of a city course may be, and not seldom are, collected in one and the same building, or they may be distributed into separate departments taught in distinct buildings. The one large schoolroom, indeed, in which all, or nearly all, the grades were taught, has given place in New England and in most of the cities to buildings with separate classrooms, each with its own teacher. The different departments, each including several grades, have also in many cities, come to be housed in different buildings. These variations, however, do not affect the character of the schools as graded schools.

The school course for each large city is graded upwards from the lowest primary instruction, always excluding infant teaching, to the high school, all the schools being regarded

as links in one chain of provision. In smaller towns or cities high schools are very rarely found. The different schools or school departments, each under its own head teacher, are classified as *primary*, *grammar* or *intermediate*, and *high* schools. In Philadelphia the primary schools are subdivided into two classes, the *lower primary* and the *secondary* schools, by *secondary* being meant *upper primary*. It is, however, necessary to explain, and very important to be borne in mind, that the terms *primary* and *grammar*, as applied to schools, have a totally different meaning in America from what they have in England. The whole range of instruction found in American primary and grammar schools is included within the scope of English public elementary instruction. The higher elementary instruction of our inspected schools is, as nearly as may be, equivalent in its range to that of the highest classes in the grammar schools of the States. The English higher grade elementary schools, such as those in Bradford and Sheffield, afford instruction as high and every way as liberal as is usually given in American high schools, with the exception of a few very superior high schools, such as those of Boston and Philadelphia, there being, however, but one such school in the vast city of Philadelphia. The common school system of the States as a whole falls quite short of what is regarded as secondary education in this country. It is only in a few of the very best of the high schools, situated in the greatest cities, that it advances on to the ground of secondary instruction. By *grammar schools* is meant nothing more than schools in which English grammar is taught—not, however, to the lower classes. The primary schools are schools so low in their elementary range that the subject of grammar is not even approached. Yet these primary schools are chiefly attended by scholars varying between the ages of seven and eleven, few being younger than seven, while more than a few are older than eleven. The grammar schools are attended by scholars varying in age between eleven or twelve and fifteen or sixteen; but a large proportion leave at the age of twelve or thereabouts, of whom not many have come in sight of English grammar, and who, on the average, are not by any means advanced up to the

level of our English exemption standard (the fourth standard) for half-time labour scholars of the age of ten or eleven; while those who remain at the grammar school till the age of sixteen, and go to the end of the course, are inferior in their standard of attainment to the seventh and ex-seventh standard scholars of our English inspected elementary schools in towns. Those who wish to see a detailed analysis of the range and grades of instruction for the three most distinguished city systems of education in the States—the systems of New York, Cincinnati, and Boston—may be referred to the *Quarterly Review* for April 1876, in which there is an article entitled "National Education in the United States," the statements of which are all taken direct from recent official sources, and have never been challenged. From this it appears that the children of well-to-do New York citizens, who enter the grammar school or department at the age of ten or eleven, the age of half-time exemption for labour in English inspected schools, do not begin to learn grammar in any form till they have reached the fourth "grade" in the school—that is, have been two years at the school. Let us add that the highest arithmetic aimed at—the maximum attainment allowable—during the first year of the grammar school course is the four simple rules.* The common school education in New York may be described generally as being more commercial than at Boston or Cincinnati; that of Cincinnati, where the German element is very powerful, as more scientific and comprehensive than that of New York or Boston; and that of Boston as more English, more thorough, and, in a literary or classical sense, more advanced than the others. Philadelphia has not been pre-eminent for its primary and grammar school education, but its one high school stands deservedly eminent among the high schools of the country. Yet in that distinguished high school—the solitary secondary public school in that immense and famous city, with its 600 scholars out of a population of a million—the boys begin

* The American *grades* represent *maxima*, which in New York, at any rate, as it appears from the City School Report, are very often not reached; whereas the English *standards* represent *minima*.

Latin at the end of the first or in the second year of their school course, at the age of seventeen or even later, and Greek nine or twelve months afterwards; the whole course being one of three years, or at the utmost of four. And this is the school where young men are prepared for the university. Boston is, of course, in various respects and on the whole, the best educated city in the States. Cincinnati, however, the modern rival of Boston, with its powerful German element, charges Boston with clinging to obsolete methods, and especially with relying too much on text-books, cram and rote-memory, a view which the long list of school-books in the Boston school committee's manual, including such items as Worcester's spelling-book, seems to favour. Boston, it cannot be forgotten, is a city of booksellers, and one of the American abuses most complained of is the unfair advantage given to certain booksellers and agents in respect of providing school-books for the common schools. Nevertheless, there is a more general sense of the value of a thoroughly "liberal" and not a merely utilitarian education in Boston than elsewhere in the States. Boston is distinguished from other great cities by its making, for those scholars who have passed through the grammar schools—very few even in Boston, but not so few as elsewhere—a twofold higher provision, either the public Latin or the English high school. There is also a girls' high school and a normal school—a very interesting and effective institution, though perhaps too largely scientific or mathematical in its caste of studies.

No one who has actually compared the English standard requirements, which represent a minimum of attainment, with the grades of the American city systems, which represent a maximum, can have any doubt, as it seems to us, that the range of education in the graded city schools of the States, age for age, is decidedly lower than in good English inspected schools, whether of town or country. If our English public elementary schools were, and had been for many years past, attended by the great mass of the children of our middle classes, including a sprinkling of those of the professional classes, there can be no doubt that their educational results would be far superior to those which are found in the common

schools of the American cities. And if, leaving the range of our inspected elementary schools, we turn to such public schools for the higher middle and professional classes as the Bedford schools, the Manchester grammar school, and the City of London school, any thought of comparison between these and the best of the American city high schools would be simply ridiculous.

From a letter contributed by Dr. Rigg to the *Spectator*, and published in the issue of that journal for July 10, 1876, a glimpse may be obtained into the interior of a superior New York girls' school, which will not, we think, be without interest to the readers of this article. Before we proceed to quote, we note that in the case Dr. Rigg describes the primary department was included in the same building with the grammar department, instead of being in a separate building.

"On June 5," says Dr. Rigg, "I visited, in company with one of the trustees and his daughter, one of the best girls' primary departments in New York, being the primary section of a girls' grammar school. . . . . I had, on a former visit to the States, made acquaintance with some of the best of the New York schools, including the magnificently appointed female normal school. I was glad, however, to embrace the opportunity of visiting this particular school. It is one which many distinguished visitors have inspected, the names of Lord Houghton, Mr. Forster, and Sir T. F. Buxton appearing among the lists. The teacher is a woman of great experience, and of more than ordinary energy and ability. . . . .

"We visited some of the classes with the teacher. In the highest class there were between thirty and forty girls. They read, spelt, and did arithmetic while we were there. The reading was clear and good; the spelling, on the phonetic system, correct and well mastered; the arithmetic was done both well and rapidly. All that we witnessed spoke of energetic and exact teaching. But the range of instruction was very low. One-sixth of the children in the class were over thirteen—six out of thirty-seven; and two-fifths (thirteen) were over twelve; the age of the remainder being eleven. And yet the highest arithmetic done in the class—that is, in the school—was *simple addition*. Children in these primary schools go no farther till they enter the grammar department. Of grammar, I need scarcely add, nothing was taught.

". . . . One teacher is allowed to fifty scholars in primary schools or departments. In the higher classes of the school the number of children is 30 to 40; in the lower the number is 70 to 80. The teacher's complaints as to the impossibility, on such conditions, of thorough instruc-

tion or discipline, were very keen and strong. As usual, however, the requirement which limits the teaching to licensed and adult teachers was evaded.

"After the complaints of which I have spoken, Colonel W—— suggested to the teacher that she should let me see and hear a little girl who had been employed to help in drilling one of the classes. This was the lowest class but one, there being eight classes in the school. 'Oh!' said the teacher, 'the little girl that graduated in this class last term?' That small 'graduate' was the little girl in question, a puny, eager, anxious-looking child, hardly large enough for eight, but probably at least nine. This little one was put to drill the class in small mental arithmetic. No doubt she did it very well, but it would have been far better and more fitly done by a pupil teacher of 14 or 15. No public school system has ever yet provided enough adults to do the work efficiently. Even America, even New York, dares not go to such an expense."

From the foregoing quotation it is evident that the New York Board of Education, having established its female normal school, regardless of expense, is making it a rule, as far as possible, and in the case of newly appointed teachers, to employ only such female teachers as have had at least some months of training.

The "free school" agitation which was launched last autumn led to not a little controversy in regard to the character and results of American common schools. Among the incidental lights which were thrown upon the subject through this controversy were two testimonies from parents who had very lately emigrated from England to the States, and who sent back to this country their experience, whilst still fresh from England, of the comparative efficiency of American schools. One of these letters was addressed to a well-known London clergyman, the rector of a city parish, and one of the secretaries of the Religious Tract Society. It was from the mother of a family which had very lately exchanged the city for Brooklyn. Her boys had attended the City Ward School connected with the parish, not by any means a brilliant school, a plain school of low range, which would hardly be regarded as up to the average standard of public elementary schools in the towns of England, to say nothing of first-class London schools. The mother reported that the children were attending a large public school in Brooklyn (the sister city of New York),

but found themselves far in advance of the other children of the same age; and that, in order to prevent her children from forgetting what they had learnt at the City Ward School, she was obliged to teach them herself in the evening. She added that it was no uncommon thing for children of eleven or twelve years of age in the American schools to be unable to read.

This letter was written only last autumn, and is interesting because of the distinct light of comparison, for practical purposes and from the parental point of view, into which it brings London ward schools and Brooklyn common schools. But it is perhaps still more interesting to be able to compare an English Board school in a remote country parish with a "graded" American town school in Nebraska. Fortunately we are able to do this. On the 14th of last December the writer of this article, without any seeking of his own, received from a clergyman in Devonshire—which town-bred English people are apt to regard as a dull and slow county, at least in its country parts—the clergyman being the chairman of the Milton Abbott Board School, a letter enclosing an extract from a letter which he had received a few days before from the master of the Board school in regard to one of his boys, the son of a small farmer, who had lately gone to America with his family, and become a scholar in the graded common school of a vigorous town in Nebraska. The following is the schoolmaster's statement :—

"I think it might interest you to know how one of our old pupils is getting on at school under the much-belauded American system. A—— B—— left us three and a half years ago. He was a shrewd, industrious boy, quite equal to the average of boys in this district. Had he remained here till now, under ordinary circumstances he would be working in the fourth standard. His father in a letter which I have just received says, 'A—— can't say the multiplication table, or work a sum in simple division. I will say this, had he been in your school he would be far-away ahead of where he now is. The teachers don't seem to push their pupils fast enough. The Americans *gas* and *blow* about their system of education that I get mad with them at times, but it will not do to let them know it. One of the most *ignorant* lads that I ever had anything to do with was supposed to have finished his education at a grand American school.'"

These cases are certainly striking; they have the merit of freshness and point. They cannot be said to represent a bygone period, although, even if they were not quite recent, they might have been of some value, since the English habit of extolling American schools to the disparagement of education in England is one not at all of recent origin, but has prevailed among certain classes of speakers and writers for half a century past. Nor can it be said that the best and most modernly complete and efficient English schools have in those cases been brought into comparison with American rural schools, or American schools under disadvantageous conditions. But on such a subject it is desirable to have impartial and non-official American evidence of undeniably high authority; such evidence abounds, and strongly confirms the inference that, on the whole, public education in the States is lower, slower, and less efficient, age for age, than our own public elementary school education, superior, on the average, as are the classes from which the scholars are drawn in the States to those from which our public elementary schools receive their scholars in England. Readers of the *Atlantic Monthly* and the *North American Review* are aware that few subjects have so frequently during the last dozen years been the subject of critical comment in those journals as the alleged defects of the American "common schools." In particular the article in the *North American Review* (1880), from the pen of one of the most eminent authors and public writers in the States (the late Mr. Richard Grant White), created a sharp and widespread sensation throughout the States. It is true that Dr. Philbrick replied to it with the dexterity of a veteran controversialist in an article entitled "The Success of the Free School System;" but, after all, the discreditable and almost incredible failures on examination in New England itself, of which Mr. White gave so many instances, remained undeniable facts, and Dr. Philbrick's official apology —he was defending his own department—was too vague and general, recognized far too low a standard of accuracy and of information as generally attainable, and pleaded for a latitude of indulgence in the allowance of errors such as to English educationists cannot but appear tantamount practically

to a confession of failure according to any other than an American standard. More to our purpose, however, than Mr. White's special analysis are some observations from the pen of the Rev. M. J. Savage, a thoughtful and careful critic, in "The Defects of the American School System," contained in the *North American Review* for February 1884. We are about to quote a passage which sums up what Mr. Savage has to say as the result of a searching examination of the subject in hand, merely noting that the city to which he refers is Boston, the best-educated city in the States:—

"In the month of February 1883 there were in all the public schools of one of our cities 54,723 pupils. Only about one-half of these, or 26,360, had gone through the primary schools and entered the grammar; while only about two and three-fourths per cent., or 1,510 had graduated at the grammar schools and entered the high. Of this small remnant, only 320 reached the third year, and but 49 of these were in the fourth or advanced class.

"Here, then, is a 'common' school system, paid for out of the common funds of the State, that devotes its best buildings, best apparatus, and best-paid teachers to what is practically the private and personal training of two and three-fourths per cent. of its children. So much for the position and work of the high schools. While only about two and three-fourths per cent. ever enter the high schools, not more than a fraction of one per cent. ever graduate.

"And the Latin schools are supported for the benefit of a fraction of those who reach the high. To urge in reply that at least all have an equal opportunity is only a mockery. It is not true. Their circumstances are such that they simply cannot use any such opportunity. Their life-work lies in other directions, and in order to live at all they must follow it.

"But this is not all. In trying to do too much the system practically fails in doing what it might, and at least ought to attempt, on behalf of the great and overwhelming majority.

"First, it does not give them the best instruction and training for the real life which they must lead. As already shown, their success in life depends on a practical knowledge of their own bodies and on moral training, much more largely than on most things about which they are actually taught. And in these two directions almost nothing is done.

"But, besides this, it does not even give them a satisfactory education in what are confessed to be the simple fundamentals. There is almost no education of the hand—the one instrument that most of them must use more than any other. Few are good penmen; few can read well; few can write a good letter in good English correctly spelled; few learn the

first principles of business, or are capable of keeping accounts. These things at least should be done, and done first of all. Many illustrative examples could be given were the space at my disposal."

As to the general subject of school attendance in the higher grades, the latest Report of the Commissioner of Education (1883-4) makes the following observations:—"The majority of the scholars who enter the grammar school do not get beyond the middle of the course. In Boston, where the grammar school comprises six classes, 64·4 per cent. of the scholars are in the three lowest classes, while only 6·7 per cent. are in the highest class. In New York" (where grammar schools comprise eight grades, representing about four years' work), "68·68 per cent. are in the four lowest classes, and only 5½ per cent. are in the highest class. . . . The conditions are substantially the same in all cities." These statistics refer to the children who pass forward from the primary to the grammar schools, but a considerable portion never enter the grammar schools. "One of the New York assistant superintendents," says Bishop Fraser in his Report on American Schools, "compntes that not more than half of the children that attend the primary schools ever enter the grammar schools; and another states that a considerable number do not even complete the primary course." This, it is true, was nearly thirty years ago. But there is little reason to suppose that school attendance has much improved in New York since that date. The very last Return published shows that in New York the number of children promoted from the primary schools to the grammar schools in the city was less by one-half than it should have been if all the children of the primary departments went forward into the grammar department. The total number of children in the primary schools, with their three years' course, was 75,548; the number promoted, 16,594. And in these primary schools, it will be remembered, the highest arithmetic taught is simple addition. In the great sister city of Brooklyn the proportionate number promoted was much smaller. In that city, also, the children in these primary grades are of all ages, from five or six to sixteen or seventeen. Even in Boston the ages of primary scholars vary from six to thirteen.

After this it will be easily understood that the average attendance at school in the United States is much smaller than in England. The limits of school age, indeed, are very different. English public elementary education is adapted to the conditions of a working-class population; American public education is adapted to middle-class conditions. Accordingly in England the school age is, for purposes of legal compulsion, from five to thirteen, and, as actually worked in the schools, may be taken as from three or four to thirteen, including two or three years of half-time. The American limits of age, on the other hand, may be stated as ranging generally from six to sixteen, although some States in theory extend the limit of age to eighteen, and New York and a few other States reckon from six to twenty-one. Practically the periods for both countries, taken in comparison with the ideas and social conditions of the two, may be reckoned as of about the same length, nine full years. Certainly it would be reasonable to expect in the States, where the uncertain element of infants is eliminated, that the average attendance would be larger, in proportion to the total population, especially in the large towns, than the average attendance in England, for the whole kingdom, both town and country. This, however, is very far from being the case. The fact is, that the average attendance in the public elementary schools for the whole population of England, including every remote and sparsely peopled labouring parish or hamlet, is larger than the attendance at the American common schools for all classes in any first-class city in the States, except Boston, the most English of all the cities, and where the educational traditions are the highest and strongest. In England, the population being 26,000,000, the total number of scholars on the books, according to the latest return, was 4,412,148, being 16·9 per cent. of the population; and the average attendance was 3,371,325, being 13 per cent. of the population, and 76·4 per cent. of the number on the books. With this let us compare the returns in the latest Report of the American Commissioner for the eight leading cities of the States. Before we give these returns, however, it is necessary to explain that what is called the "enrolment" in American school statistics is a very uncertain element in any calculation.

In this return are very often included all the names which have been entered on the rolls, even though the entries be re-entries, during the whole year. In other words, the lists are not weeded of re-entries; nor, again, are the names of those who have finally left school, or have removed, omitted from the lists when made up for the year. The return does not in these cases represent the number enrolled at any given date. It does not answer to what is meant in England by the number on the books or on the roll.* In Philadelphia, however, and in Boston, the English principle of reckoning is in use. The like also is probably true of Baltimore, if we may judge from the returns we are about to give. For the purpose of our present comparison the only point to be noted is the percentage of average attendance to the population. The following, then, are the returns for the eight cities:—

City.	Population.	Scholars Enrolled.	Average Attendance.	Proportion of Average Attendance	
				to No. Enrolled.	to Population
New York . . .	1,206,299	294,706	142,857	48·4	11·8
Brooklyn	566,663	97,603	58,156	59·5	10·2
Philadelphia . . .	847,170	105,424	99,364	94·2	11·7
Chicago	503,185	79,465	54,047	67·8	10·7
Cincinnati . . .	255,139	35,240	28,148	79·8	11
St. Louis	350,518	56,350	37,600	66·7	10·7
Baltimore	332,313	37,546	31,601	84	9·4
Boston	362,839	58,649	51,477	87·7	14·1

From which table it will be seen that the proportion of children (mainly of the wage-earning operative classes) in daily attendance at the inspected schools of England, including all the rural schools, is larger than of the scholars in the common schools of the greatest cities of the States, although beforehand it would certainly have been expected that the American

* Dr. Rigg found in 1876 that in Chicago, where the supply of common schools has always been inadequate, not only were some of the schools made to serve two different sets of scholars each day, but that any scholar was turned away who had been absent six half-days in the month. Nevertheless, such scholars could be re-admitted, and the Report of the City Board of Education showed that a few of the children had been admitted into the same school six times in one year (1874-5).

middle classes would send their children to school more regularly, more largely, and for a longer period than the working-class parents of England. The average attendance at Boston and Philadelphia, in proportion to the number on the books, is, as might be expected in the middle-class schools of such cities, creditably high. At Philadelphia it seems to be higher than at Boston. We have no doubt, however, that that is to be explained by the fact that the supply of schools in Philadelphia is less liberal than in Boston, and that in consequence the names of irregular scholars are strictly omitted from the school-roll.

The point we have just dealt with raises the question of *compulsion*. Twenty years ago, and less, it was a common impression that education in the States was compulsory. Mr. John Morley, much less than twenty years ago, wrote to the *Times* an intrepid letter of public counsel, in which this view was assumed as fact, and yet never was there less foundation for a serious statement on the part of a public man. It was the old story—New England ideas and suggestions were assumed to be American facts. It is true that of recent years a very few of the States have passed laws for what is spoken of as "compulsory education." But the laws have remained, and could not but remain, a dead letter. There is nothing practical about them, and they do not in the least conform to the European conception of educational compulsion.

The Compulsory Law of Rhode Island is a very good example of the rest. It says: "Unless otherwise instructed, every child in good health, between eight and fourteen years of age, must attend the public school at least three months in a year, the employment of such child by a manufactnrer being forbidden, unless the child has attended three months during the previous year." That is to say, the educational authorities are to inquire, as to every boy employed, whether he was at school for three months in the previous year.* Generally speaking, the enactments add, "or properly instructed at

* It is not to be wondered at that, as we learn from the last Report of the American Bureau (1883–4), the City Council of Providence, R.I., have declined to pass an ordinance to carry into effect so unpractical a "truant law."

home"; and if a boy was not at school during three months of the previous year, or properly instructed at home, he is sent to school until he has completed his three months' education in school; and after that he goes to work. Then there are in New York, Boston, and a few places besides, what are called "truant officers." Their business is, not to see that boys are sent to a school in our sense, but to arrest boys who are neither at school nor at work; they take them before a magistrate, and the boys are then sent to a truant school (which is a kind of reformatory), or, in the case of New York, they are sent to a penal island—Randall's Island. In this way, when they deal with the matter at all, they treat boys who are found in the streets as criminals. Our idea of looking after the children by house-rows, and compelling their being sent to school by the parents, has never entered the people's minds in the United States; and the reason is, that they are too free for it—they would not endure it; they are a middle-class people. We have never attempted to apply compulsion in this country to the people who live in the best houses; and the people of the United States feel just like those people. As a middle-class nation they would not endure such compulsion for a moment, and consequently compulsion in our sense, or in the German sense, is a thing which has never been known, and is not likely to be known, in the United States. And what is the consequence? One consequence is, that in the city of Chicago a proposal has been made to get the children to school in another way. We will quote from a small tract called "The Manual Training School for all the People." The writer of it is Colonel Augustus Jacobson. He says: "The children are not at school because it is more profitable for them to go to work." And then he says: "The only way to get them educated is to pay the parents the wages which the children could have made if they had not been sent to school; instead of going for a mere pittance into the coal mine, the mill, or the factory, to be dwarfed physically, mentally, and morally, by long hours, overwork, and evil associations, the children of the very poor, for like wages wherewith to buy bread, would gladly crowd into the schools." Then he says: "The farmers and people working on the land would

do the same, if only they were paid for it." "The farmers' children would go to the nearest manual training school." He says again: "The enactment into law of this proposition would place this country centuries ahead of other nations in intelligence, comfort, and prosperity. From the moment of its adoption this reform would better the condition of every working man in the country. Instead of its being a burden for a poor man to educate his children, the money he would then draw from the public fund for their education would lighten his load. Instead of, as now, looking forward with anxiety as to how he shall provide for his children their education, their own heads and their own hands would provide for them." He makes a calculation of what it would cost: "The enactment into law of this proposition would make it cheaper for a man to educate his children than to leave them in ignorance. Say that a man has four children. The aggregate manual training school years of four children would be sixteen. The average amount of money the head of a family would draw from the public fund for their school attendance would be $125 for each child, each year—in all $2,000." He goes on to ask, How is that to be obtained? and he says the whisky tax, which is likely soon to be abolished, might just as well be kept on, and it would afford the necessary millions. He goes on to say: "Some wiseacre will be sure to say that this proposition is communistic. This proposition is precisely as communistic as it is, and no more communistic than it is, to tax the man who has no children to pay for the education of other people's children. The school tax is levied to render more secure person, liberty, and property. The distribution of the proceeds of the whisky and tobacco tax, in the manner proposed, would be simply an additional means to accomplish the same ends. If the school tax is communistic, then this proposition is communistic; if the school tax is not communistic, then this proposition is not communistic."

The value of this pamphlet is to show that the pinch felt in America, as in England, is the want of the children's wages. It is that which prevents the school attendance of the children, and it is felt that gratuitous education is very far from meeting the case, if on that line it is at all to be met; that, in short,

provision must be made for the loss of the children's wages to the parents.

The low thoroughfares of the large cities in the States are littered with waifs and strays, from the infant street-arab to the loafing youth, who has long been a member of the criminal or semi-criminal population. The official estimate of the number of children in the streets of Philadelphia, given a few years ago in one of the Reports of the Commissioner of Education, was 20,000. The number in the streets of New York has been variously estimated at from 20,000 to 50,000. The operation of the Truant Law in New York seems, during the last few years, to have effected some diminution of the number. But much more efficacious than the Truant Law have been the voluntary charitable organizations, some of them Roman Catholic, but more, we believe, Protestant, though undenominational, which are carried on in the lowest parts of New York. Their object is, to quote the language of Mr. Loring Bruce, the Secretary of the Children's Aid Society, "to gather in the street children, runaways, truants, little bootblacks, newsboys, and all the nondescript crowd of half-vagrant boys and girls who used to infest the New York lanes and alleys." By the operation of such agencies it would seem that some 30,000 children are brought into schools of one description or other—some of them what we should call "day industrial schools," some dinner schools—and that crime and vagrancy have for some time been steadily diminishing in the city. Indeed, one of the finest points in New York city organization—where, in connexion with municipal affairs, there is so much to lament and condemn—is the City Charitable and Educational Associations, of which the Five Points may be said to represent the local centre. Similar voluntary organizations also exist in Philadelphia and more or less in the other large cities. The "common schools" fail to provide for the class of children of which we have been speaking.

The discovery of extensive illiteracy as an hereditary evil among the native-born population of the States startled the American public when it was first proclaimed in 1869 by one of the most eminent statisticians and public writers in the

nation, Dr. Leigh. It was in Barnard's *Journal of Education* that he, in that year, published the results of his analysis of successive census returns, his papers on the subject being illustrated by comparative maps of illiteracy. The results of the last census, as to this particular, compared with the preceding, have been very disappointing to American patriotism and educational zeal, and Joseph Cooke, of Boston, has spoken out on the subject in the most emphatic and forcible manner. In 1870, according to the census, the total population was 38,600,000, of which population 5,660,000, above the age of ten, were unable to write, of whom 4,900,000, including coloured people, were native-born, and 760,000 were foreign-born. At that time, however, only six years had passed since the Civil War, and all the effects of slavery in the past, *plus* the disorganization of the war, were hanging over the States. It was natural, therefore, to expect that the census of 1880 would show a great educational advance in all respects. The returns of 1880 were as follows:—Population, 50,000,000; unable to write, above ten years, 6,239,958, of whom 2,255,460 were native-born whites, the native-born coloured illiterates being 3,220,920, and the foreign-born whites only 763,620. To compare the condition with former censuses it is necessary to compute the percentage of adult illiterates—illiterates over the age of twenty; the proportion of such, it must be remembered, being always greater than of illiterates over the age of ten. In 1840 the proportion of white adult illiterates was stated at 9 per cent.; in 1850 at 11 per cent.; in 1860 at 9 per cent.; in 1870 it appears to have been about 8 per cent.; for the last census it was nearly 9 per cent. The experts of the American Board of Statistics, from Horace Mann downwards to the present time, tell us that these returns, especially those of the earlier years, cannot be relied upon, and that the real percentages would be much higher. These returns are, however, our only light in this inquiry, and they serve to establish the conclusion that it is very doubtful whether native-born illiteracy, even among whites, is diminishing in its proportion in the States, while it is certain that it is increasing in its absolute amount. The problem of coloured native-born illiteracy in the States is of

course a great and special difficulty. But then it must always be remembered that the problem of bringing an effective and elevating education home to the children of the rural labouring population of England has also been one of extreme and crucial difficulty. We can see no reason why it should be more difficult in America to educate the children of free coloured citizens and electors, than in England to educate the children of a peasantry who have inherited not only poverty but ignorance and civil and social disability and repression. This is a subject to which the attention not only of the Southern States, but of Congress itself, has now been energetically called, and grants are now made from national sources of revenue to aid the Southern States in the work of educating the coloured people.

Technical schools have found no place in American systems of education. In 1870 Massachusetts provided for giving "instruction in industrial or mechanical drawing to persons over fifteen years of age;" and a few years later that leading State induced Mr. Smith, from South Kensington, to come over to Boston and organize the State arrangements for teaching drawing. In 1875 New York adopted the same provision as Massachusetts. But, so far as we know, that is all that has been done in this direction. The Boston Technological Institute is a very fine institution, but it is for managers, masters, and men, not for boys, or as any part of a general educational system. The Americans are eminent for mechanical ingenuity and invention; but it is precisely where the common schools are, as a rule, the most homely and least comprehensive or ambitious in their organization—in the old country regions of the New England and neighbouring States, and amongst the farming population—that invention and ingenuity have most abounded. Necessity has been the mother of invention. The youths and men have had to be "jacks of all trades."*

In a nation of which the wealth and the development in all respects have been so wonderfully rapid in their growth as in the United States, it was of course impossible that the

* There is a Manual Training Department in the Washington University, St. Louis, and a well-appointed Manual Training School at Chicago.

superior classes of the population should remain generally content with the common schools of which we have been speaking. We confess, however, to have been surprised by the discovery that there are no fewer than 600,000 scholars in private schools, "academies," "colleges," private "high schools," without taking account of the scores of chartered degree-conferring "colleges," and the host of highly organized "universities" which are scattered over the whole country. The private schools to which we refer are for the most part distinctly denominational. Even those churches which, like the Methodist, have strongly supported the principle of the undenominational public or common school, are most zealous and even *doctrinaire* in their support and promotion of high-grade denominational education in academy, college, and university. Of the larger and older colleges, and of the ambitious new universities, very few, indeed, can at all be compared, as to accuracy and finish of scholarship, or as to thoroughness and comprehensiveness of teaching, with our English universities. *Harvard* and *Yale*, however, which have the ripeness of two centuries upon them, have produced not a few accomplished scholars and men of science, especially Harvard; and, if they cannot equal, nobly emulate the older universities of England. In some of the new universities, as in the Boston University, which is a Methodist foundation, and very distinguished as a young institution, especially in its Law Faculty, the principle of "co-education" for both sexes is thoroughly carried out.

There is one point more which we must notice, and that is, that in America the difficulty of the problem of free education is very much alleviated by reason of the public funds at the disposal of the country as a whole, and of the various States, for that purpose. In the beginning, for these schools were provided lands—glebes as we might call them—or rents of lands, or money from the public funds, to pay the schoolmasters; and to this day, in numbers of country places, the schools are kept going just as long as the money will last; when the money is expended, the schools are at an end. The local Boards pay the teachers out of the local funds, and they will not pay more than the local funds enable them to pay;

and thus the school sometimes does not last for more than three or four months in the year. According to the latest return we have seen, out of a total cost of $97,046,456 for educational purposes, $75,946,283 are provided out of the public funds, so that there are only $21,100,173 left to be provided from other sources—that is, out of taxation in any form. In New York the cost of the city schools is very heavy—so heavy, that one would expect the schools there to be much more effective in their work than they in many cases actually turn out to be. There the requisite funds are derived from—(1) a State school tax of one and a quarter millions on the taxable value of real and personal property; (2) an equal amount from the city and county; (3) one-twentieth of one per cent. on the taxable property of the city and county of New York; (4) the balance derived from the municipal taxes and revenue of the city of New York, but not to exceed $10 *per capita* on the whole number of children taught.

The schools, speaking generally, are decidedly inferior, alike as to buildings and in their internal arrangements and appointments, to those of this country. The rural schools, as we saw in our former article, are not to be compared for a moment with English country schools; while the Board schools which since 1871 have been erected in the School Board districts of this country are superior to the best American "common schools." Nowhere is the superiority of the English schools more marked than in the case of London as compared with New York. Even Chicago criticizes with some severity, and not unjustly, the character of the common school buildings and appointments in New York.* There is great waste somewhere in the expenditure of the very large New York educational revenue. There is a deficiency of schools; the teachers are, in comparison of the English standard, poorly paid; and the buildings are inferior in themselves, except as respects the Assembly Hall, and are placed on inferior sites.

The result of our study of the American school system

* Report of Chicago Superintendent of Education for 1875.

should surely be to make us cautious in departing from any principle of organization, or any growth of educational science and methods, in this country, to which we have been intelligently led by our national experience, and by the application to our own educational problems of the trained intelligence of our educational experts and our public administrators. There is nothing for us to envy in American common school education. That great republic is learning for itself, and in its own shrewd and persistent manner will solve its own educational problems. But its problems are not ours, and for us to adopt the American standards and methods and organization, if it were possible, which it is not, would mean not progress but retrogression.*

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* We may refer in this final note to an article by Senator Ingalls in the *North American Review* for last April, on the subject of the grant of 79 million dollars made to the Southern States towards remedying illiteracy, referred to above at p. 358. Of this article a summary will be found at p. 398 of our present number. We may also refer, as confirming and illustrating in detail some of our remarks in both our present and our former article, to Mr. Walsh's article in the *American Methodist Review* for May, of which a summary is given at p. 399 of our present number.

SHORT REVIEWS AND BRIEF NOTICES.

THEOLOGY.

Supplement to Biblico-Theological Lexicon of New Testament Greek. By HERMANN CREMER, D.D. Translated from the last German edition by WM. URWICK, M.A. T. & T. Clark. 1886.

THIS handsome volume contains the additions made to Dr. Cremer's well-known and invaluable Lexicon since 1878. A work of this kind must grow. It implies the labours, not of a few years, but of a lifetime; and it cannot but gain by appearing gradually, each edition containing considerable additions and improvements, instead of the author's delaying to bring out any part till the whole was perfected. Four German editions have thus far appeared, the contents of only two of which were embodied in the large English edition published by Messrs. Clark eight years ago. The present Supplement contains additional matter amounting to quite one-third of the whole, some of the articles consisting of additions to the discussion of words already treated of, others being entirely new. Upwards of 300 words are now treated for the first time.

Professor Cremer's work is so generally recognized as a standard one on his subject, that there is no need for us to describe its scope. Suffice it to say that it is indispensable to the thorough student of New Testament Greek. The use of an admirable ordinary lexicon such as Grimm's, which we are glad to see is at last announced as about to appear in an English edition—also published by Messrs. Clark—can never of itself be sufficient. A fuller study of the cardinal words of the New Testament is needed, ampler and more detailed than any ordinary lexicon can give. The treatment of such words demands the combined knowledge of a good lexicographer and a well-read theologian. This kind of treatment is found in Cremer, and nowhere else with the same completeness. And now, thanks to the care bestowed upon the fine English edition completed by the issue of the present Supplement, an English reader may gather easily the fruits of the author's accurate and exhaustive study. The quarto

page, with its ample margins and clear print, gives the Englishman a decided advantage in some respects over the student of the original.

Some of the main additions made in this volume relate to such important words as *αἰών*, *ἅγιος*, *δίκαιος*, *βασιλεία*, *σάρξ*, and *σοφία*. We may take the treatment of *σάρξ* as a specimen. In the former edition some three or four pages were devoted to the word: the Supplement contains thirteen, implying, of course, a fresh study of the whole. That the theological student who has not used the work may judge of its method and value we may say that Cremer first discusses the use of the word in profane Greek. Then he deals at greater length with the LXX. of the Apocrypha, showing in detail and very admirably how the connexion of the word with Hebrew thought widens its significance, especially in an ethical direction. Under the head of New Testament usage we have a mention of (1) the non-Pauline writings, the various shades of meaning here being accurately discriminated, and (2) the Pauline writings, the *usus loquendi* of the great Apostle of the Gentiles on this important subject being specially important. It is unnecessary to say that the views of recent writers, such as Holsten and Wendt, receive due notice, though Cremer wisely refuses to go out of his way to discuss details which belong to the commentator.

We cannot bind ourselves to the dicta of any lexicographer, however learned. The classification of passages of the New Testament, which forms the main body of such a work as this, involves so large a number of individual judgments that differences of opinion must of necessity arise at every turn. But used with discrimination combined with the deference which is due to such an authority, Cremer's Lexicon is simply invaluable as an aid to New Testament study. No minister could read, for example, the dissertation—it is little less—on *σοφία* or *δικαιόω*, without enriching his mind with a number of most suggestive thoughts, and gaining in mental discipline. Nothing could better promote the habit of scientific study of what Trench well describes as the *στοιχεῖα* of the New Testament than an habitual use of this Lexicon.

We are grateful to Messrs. Clark for bringing this work so easily and pleasantly within the reach of English readers. All who possess the quarto second edition should obtain the Supplement, and those who do so will find that an admirable index makes reference to either volume easy. Those who know the book are sure to prize this edition of it; those who do not should remedy the deficiency as soon as possible.

A History of the Jewish People in the Time of Jesus Christ. By EMIL SCHURER, D.D., M.A. Second Division. Vols. I. & II. Edinburgh: T. & T. Clark.

The present work is not merely a new edition, but an entire reconstruction of the author's *Manual of the History of New Testament Times*, and

has been long promised and looked for. The reason assigned by the author for issuing the second division before the first is that he "began operations on this second half because there was more to be done here than in the first." The first division "may follow" in about a year. Another English volume is necessary to complete the second division. The amount of reconstruction may be estimated from the fact that, although only two new sections are added, the second division contains three times as much matter as in the first edition. The first division, it is said, will not be increased to the same extent. We hope it will appear within the promised space of time.

The subject of the work is enough to show its vast importance for the illustration of the New Testament, and the treatment is worthy of the subject. The only competing treatise is Dr. Hausrath's, which, if more brilliant in style, is not more learned or thorough. Dr. Schürer's style is eminently clear and readable, and he is not committed quite so deeply to "critical" views. On this point, indeed, there is scope for discrimination in the reader. The author is not afraid of imputing to New Testament writers unwarranted methods of Rabbinical interpretation. He says (i. 349), "Who would now justify such treatment of Old Testament passages as are found—*e.g.*, in Gal. iii. 16, iv. 22–25, Rom. x. 6–8 Matt. xxii. 31, 32?" We might also refer to such sweeping statements respecting the Old Testament doctrine of immortality as ii. 39. But these are exceptions. On the whole a historical subject is treated in a historical spirit. The author is content to delineate without criticizing. The learning of the work is amazing. The notes alone are a magazine of reference and proof. In the text Jewish literature is ransacked for materials with which to give a picture of the different aspects of Jewish life. By grouping and elucidatory discussion the heterogeneous details are pieced into admirable unity. The subject is "A History of the *Jewish* People." The heathen world is rightly excluded, "because the selection to be made must have been an arbitrary one."

The topics of the several sections cover the whole field of Jewish life, social, literary, political, religious. In each section the reader will find all that is known on the subject in hand, the probable sifted from the improbable, and the theory advocated generally one which it will not be easy to controvert. The sections relating to Jewish orders and sects—Scribes, Pharisees, Sadducees, Essenes—are particularly interesting. The character of the last-named has always been one of the problems of Jewish history. Dr. Schürer's view is that, "while the Pharisee and Sadducees were large political and religious *parties*, the Essenes might far rather be compared to a *monastic order*." The pages delineating the customs and doctrines of this order (ii. 192–204) are a striking example of the piecing together of details just now referred to. The basis of Essenism is undoubtedly Jewish. "Essenism is, in the first place, merely Pharisaism in the superlative degree" (p. 210). But whence

come those practices of the sect which are plainly foreign to the Jewish spirit, such as celibacy, rejection of animal sacrifices, &c.? After examining other explanations, Dr. Schürer prefers to derive them from Pythagoreanism. The latter school is more ancient than Essenism, it contains all the non-Jewish elements of Essenism, and the great influence of Greek culture on Palestine after Alexander's days is a well-known historical fact. The section on "The Priesthood and the Temple Worship" is exceedingly full and instructive; but it must be noted that Dr. Schürer proceeds on the Wellhausen theory. He says, "The following view is based on the assumption that the so-called priestly code (*i.e.*, the bulk of the laws in Exodus, Leviticus, and Numbers) belongs to a later date than Deuteronomy and Ezekiel." His theory, which is simply assumed, not discussed, does not lessen the value of his clear, exhaustive analysis of the regulations respecting priests and Levites their emoluments and functions, the daily service. The section on the "School and Synagogue" is valuable, not only for its description of the state of education and literature among the Jews, but especially for the elaborate account of the history and nature of the Synagogue. It is to the Synagogue, not to the Temple, that the Christian Church of the New Testament looks back. "In purely Jewish localities the elders of the place will have been also the elders of the Synagogue." Here we have Church and State. The government of the congregation was in the hands of the elders (presbyters), not of the congregation. Beside the elders, who had the general direction, other officers were the Ruler of the Synagogue, Receiver of Alms, and Ministers or Attendants. As to the service, Dr. Schürer remarks, "The main object of the Sabbath-day assemblages in the Synagogue was not public worship in its stricter sense—*i.e.*, not devotion, but religious instruction." "The peculiarity is, that just for the acts proper to public worship—the reading of the Scriptures, preaching, and prayer—no special officials were appointed. These acts were, on the contrary, in the time of Christ, still freely performed in turn by members of the congregation, on which account, *e.g.*, Christ was able, whenever he came into a synagogue, to immediately address the congregation." The other sections are as interesting and instructive as those we have thus briefly glanced at.

Much depends on accuracy of translation in reproducing a scholarly work like the present. Though the translators have done their work well, on p. 16, vol. ii. we notice a curious slip. Respecting the Jewish doctrine of Providence we are told of "three possible standpoints: (1) absolute fate; (2) absolute freedom; (3) intervening inspection." The last phrase is quite unintelligible. Dr. Schürer's phrase is *vermittelnde Ansicht*, which means "intermediate theory." Why "point of sight" is used sometimes for "point of view," we do not understand.

A Commentary and Notes on the Epistle to the Romans. By the Rev. W. A. O'Connor, B.A., Trin. Coll. Dublin. Second Edition. London: Kegan Paul, Trench & Co.

A commentary on the Epistle to the Romans in less than a hundred pages! We admire the courage of an author who attempts such a feat in exegetics, and wish we could think as well of his accuracy and trustworthiness. A compendium, written on the same plan, giving the connection of thought of Paul's Epistles, would be useful to many. But Mr. O'Connor is by no means a safe guide. He would change, often reverse, interpretations which have been universally accepted for ages. Not that we value interpreters for their antiquity; but we cannot think that the author's new meanings were St. Paul's meanings. For example, it is quite impossible to accept "by means of the weakening of all bygone sins" as a right translation in ch. iii. 25: grammar and dictionary forbid it. In ch. vi. 2, Mr. O'Connor renders "are dead by sin," and justifies the translation by a similar one in Gal. ii. 19, "dead by the law;" adding, "The law made him a sinner, and then put him to death for being one." In ch. xii. 2, "by the renewing agency of the mind," seems curiously perverse. We are not quite sure whether we catch the author's meaning on p. 16, but so much seems clear, that he denies any opposition between faith and works as a means of justification. "There is no contrast," he says, "or opposition between working and believing in this passage of Scripture." If St. Paul does not exclude works of the law from the sphere of justification, what does he mean? We understand St. Paul, but not his commentator. The author also says that "the expressions 'worketh' and 'worketh not,' mean respectively 'works out' his justification and 'does not work out' his justification." These are examples. There is such a thing as originality in error as well as in truth.

Four Centuries of Silence; or, from Malachi to Christ. By the Rev. R. A. Redford, M.A., LL.B. London: J. Nisbet & Co. 1886.

The centuries which intervene between the Old and the New Testaments are full of importance for the history of Jewish life and thought. It is to that time we must go for the origin of the Septuagint, the Apocrypha, the Jewish sects, the Sanhedrim, and the Alexandrian school of thought. If these subjects are still wrapped in great obscurity, the obscurity is not due entirely to the lack of historical materials. Some portion of it arises from the care with which the subject has been avoided by investigators. Prideaux still remains the best, we may almost say the only, original work on the subject in English. Mr. Redford has therefore done good service in giving a popular sketch of the period in question. Whilst relying mainly on writers like Ewald, Edersheim, Stanley and Prideaux,

he exercises an independent judgment in the conclusions arrived at. Not the least interesting part of the work is the account given of the eclectic Judaism of Alexandria, which culminated in Philo. At the time of the Christian era the Jews residing there are said to have numbered a million, and their contact with Greek philosophy in Alexander's famous city had the profoundest effect, both on the form and substance of their belief. Their favourite notion was that Greece drew from the founts of Jewish wisdom, and that Plato was simply "Moses Atticizing." That there is some affinity between the Platonic "idea" and the Philonist "Logos" is evident. The latter, however, never becomes a person, and it is not divine as in the New Testament. After quoting Edersheim's account, Mr. Redford says, "The Logos of Philo, while it may be founded upon these ancient Jewish ideas, is yet a less definite and more philosophical conception. It seems to be a combination of the Memra of Onkelos, with the idea of Plato. It is the archetypal man, the image of God, upon which man was made." We quite agree with the remark that "such gropings after truth, so close upon the time of the Saviour's advent, are exceedingly instructive. Such men as Philo were witnesses for God." Mr. Redford continues his history up to the point at which the silence is broken by the voice in the wilderness.

A Rabbinical Commentary on Genesis. By P. J. HERSHON. With an Introductory Preface by Archdeacon FARRAR. London: Hodder & Stoughton.

The original work, of which a portion is translated in this volume, was written by a learned Rabbi in the seventeenth century in the "Judæo-Polish dialect," and is still popular among certain sections of the Jews. Like the mediæval commentaries, it is a compilation from ancient sources, from the Talmud and Talmudic writers. The object of the translator is to give an insight into Jewish exegesis and theology, and the object is excellently fulfilled. The very essence of Talmudic teaching is reproduced in concrete, intelligible form. In this point of view the present is one of the most valuable of Mr. Hershon's works. The Talmud is left to speak for itself, so that we can form our own opinion of its value, apart from all eulogy or dispraise of critics. For our own part, after reading this specimen of its teaching, we should say the less said of its worth the better. Impossible philology, legendary history, fantastic conceits, are among the least of its faults. Thus, "God deliberated from what member (of Adam's body) he should create a woman, and he reasoned with himself thus: I must not create her from Adam's head, for she would be a proud person and hold her head high. If I create her from the eye, then she will wish to pry into all things; if from the ear, she will wish to hear all things; if from the mouth she will talk much; if from the heart she will envy all people; if from the hand, she will desire to take to herself all things; if from the feet she will be a gadabout. . . . Yet for all these

(careful precautions) she has all these faults." Mr. Hershon has omitted much coarseness, but some is still left or suggested.

The Mystery of God: a Consideration of some Intellectual Hindrances to Faith. By T. VINCENT TYMMS. London: Elliot Stock. 1886.

The chapters of this volume have grown out of papers and addresses to young men, which were afterwards expanded into public lectures. The subjects cover all the main positions in the ground debated between faith and scepticism—the theories of Materialism and Pantheism, the Design argument, the difficulties of Deism, the problem of Evil, Miracles, the evidences of the Divine Authority of Scripture, the Person and Resurrection of Christ. Around these points the whole question of Christianity turns. The author's reasoning is strong, and his style clear and even picturesque. He neither overstates his own case, nor understates that of opponents. "A full review of Christian controversy would show that more damage has been done to faith by indiscreet contentions for dubious and non-essential points than by any hostile attacks." At the same time we do not find that he has gone to the other foolish extreme of concessions which practically surrender the question in dispute. Nor does he attempt to exhaust his subject and arguments. Just enough is stated to describe and vindicate the Christian doctrine under consideration. Another good feature is the writer's courteous treatment of opponents. Speaking of Professors Huxley and Tyndall, he says: "A Christian may well feel some shame on account of the manner in which they have been treated by numerous theologians, and by many who are not theologians, but have taken upon them to speak bitterly for God." Other opponents, whose views are discussed at length, are Seeley, M. Arnold, Mill, Spencer, Strauss, Renan. Arnold and Renan are spoken of with most severity, and we scarcely wonder. Of Arnold the writer says: "If he would print a Bible, or, say, Isaiah, with his definition of the Hebrew God given *in extenso* wherever the name of the Deity occurs, it would be at least a literary curiosity, and might do much to exhibit that old prophet's 'lucidity'! . . . . Wherein he tries to show that the God of the Bible is an impersonal energy, he must be left to the reader's sense of humour, which is of more value than either logic or metaphysics in detecting nonsense." After quoting a passage in which Renan labours to confuse moral distinctions in the case of Christ, the writer justly says: "Of all the insults heaped on the head of Jesus, this passage is one of the most atrocious. Such immoral praises constitute a crown of thorns sharper than those woven by the Roman soldiers. They are more disgraceful than any spitting, and a robe of honour more full of mockery than the purple imitation of Cæsars. But the insult is not limited to Christ. It is cast on all readers of Renan's book, because we are invited to worship a deceiver, not merely in spite of, but because of, his deceit."

In the chapters on Materialism and Pantheism the writer wisely takes the historical method, giving a critical account of the different theories of the two schools. The inadequacy of the theories as such, and their immoral consequences, are demonstrated with unsparing logic. After an interesting account of the old atomic theories, which becomes quite lively at times, he says: "I offer no opinion on the merits of these rival theories. A few generations hence, perhaps, the question will be settled. Meanwhile let us remember that the atomic theory is theory only, and not scientific knowledge. The Materialist can no more show us an atom or a primary fluid than the Theist can show us God. No man by his senses can perceive the one or the other. All he can rightly say of either is 'I believe.' The most dogmatic creeds produced by Christendom are not so presumptuous as to say 'I know.' It were well if all professors of science were as diffident when their teachings are carried beyond the limits of demonstration." The chapter on Pantheism has some keen criticism of Mr. Seeley's *Natural Religion*, and his selection of Goethe and Wordsworth as examples of Pantheistic teaching. In the chapter on Theism, Mr. Mill's objections are elaborately dealt with. The discussion of the mystery of evil says all that can be said on the subject. His answer to the question whether moral perfection could be reached otherwise than by moral probation is an emphatic "No." "Such a goal could not conceivably be reached by any shorter path. Omnipotence could not create men with the ripe results of moral conflict in their hearts and minds prior to any actual experience. There are some people who believe that the countless millions of fossils which lie embedded in the earth's crust never were living animals, but were created to simulate dead species, just as they now appear. Such a monstrous notion is plausible compared with the idea of creating moral beings as ready-made victors in a heavenly state of blessedness. God could create any number of golden crowns and leafy palms and robes of spotless white; but if these were worn by creatures who had never fought and conquered, never been tempted and delivered, the heavenly city would have no more moral grandeur than an exhibition of waxen kings and warriors. Nay, worse, it would be a created fraud, an everlasting lie. The joy and glory of the redeemed are conditioned by the fact that they have truly been in and have come out of tribulation." The book is eminently one for the times.

The Apostolic and Post-Apostolic Times: their Diversity and Unity in Life and Doctrine. By G. V. LECHLER, D.D. Third Edition. Revised and re-written. Translated by A. J. K. DAVIDSON. In two vols. Edinburgh: T. & T. Clark. 1886.

Mr. Davidson has admirably done his work as translator of one of the most valuable works of German evangelical Protestantism recently pub-

lished. The veteran Professor of Theology in Leipsig has entirely re-cast and re-written this work, and has incorporated the latest acquisitions of modern discovery and research on the subjects with which he deals. The first of these volumes relates to the organized life and fellowship and the ecclesiastical development of the apostolic and post-apostolic Church. In this part the latest publications of our own learned Bishop of Durham come into close correlation with Lechler's dissertations. Lechler, indeed, is an authority frequently cited by Bishop Lightfoot. Methodists will find the most satisfactory confirmation in this first volume of their own views and principles as respects the primitive Church fellowship and organization. Their whole position, indeed, intermediate and moderate as it is, in regard to the different theories of Church organization and government, is in its general outline strongly sustained by the views and arguments of Dr. Lechler. The second volume is a powerful and very valuable argument against the theories of German Rationalism respecting the development of Christian doctrine within the first century and a half. Altogether this is an indispensable work for the theological student.

An Introduction to Theology: its Principles, Branches, Results and Literature. By ALFRED CAVE, B.A. Edinburgh: T. & T. Clark. 1886.

This is the first attempt in England to construct an Introduction to Theology on the plan of the German "Theological Encyclopædia," the object of which is to give a conspectus of the whole field of theology describing the aim of its different branches and their historical development, as well as indicating the best books in each department. Hagenbach's still remains the classical work in this field, covering as it does the entire ground, and observing proportion in its treatment of the several branches. It is in the latter respect that Prof. Cave has fallen behind his model. Biblical Theology is exhaustively treated, occupying more than forty sections, while Dogmatic Theology, to which Biblical is merely the introduction, occupies only ten. This disproportion will, we fear, give many beginners a mistaken idea of the relative importance of the two subjects. What is needed under the head of Dogmatics is a tolerably full introduction to the different systems, Protestant and Romanist, which have arisen. By-the-way, we greatly prefer the term "Dogmatic" to Prof. Cave's "Comparative Theology," despite his reasoning. The latter term is appropriated to another subject, beyond recall. Another defect is the inadequate treatment of English theology (p. 497). "No such magnificent evolution" may have been witnessed in England as abroad; still, there has been an evolution, far more magnificent than would be gathered from these pages. Only some of the great Anglican and Puritan names are mentioned, and these barely. The author's strength evidently lies in foreign theology. The part

of the work referring to Great Britain needs to be greatly strengthened. Some account of the different schools of thought, with brief analyses of the principal writers, would be very useful. We have pointed out these defects, not in a fault-finding spirit, but in response to the author's invitation of criticism in the Preface. Among the most valuable portions of the work are the nineteen classified lists of books recommended in addition to books noticed in the text, the exposition of the benefits of each branch of study, and the earnest counsels given to theological students. May those counsels fall on willing ears. One of the perils of the Church in our days is the notion that evangelistic zeal will do instead of thorough, systematic knowledge. In a work involving so much detail, some errors have inevitably crept in. On p. 451, the Erlangen Professor, Herzog, is described as "Old Catholic," whereas in his Introduction his standpoint is said to be that of "Evangelical Protestantism." Herzog is the Editor of the great Protestant Encyclopædia. In the "Index of Authors" we find two different "Goodwins" referred to under the same heading. We have no doubt that the work will receive from students of theology the hearty welcome it deserves.

Synoptical Lectures on the Books of Holy Scripture. By DONALD FRASER, M.A., D.D. In two vols. Fourth Edition, carefully revised throughout. London: James Nisbet & Co.

The demand for a fourth edition of such a work as this is another proof that the present piecemeal fashion of treating Scripture is happily giving way to exposition in the proper sense, *i.e.*, to teaching which recognizes the unity of Scripture. After all, this change is only a return to the old paths; witness the great expositors of Puritan days. The revival of the expository instinct is synchronous with the appearance of commentaries more numerous, and, on the whole, better than any the Church has seen before. Dr. Fraser's volumes will prove most helpful to preachers, teachers, and students, who wish to take this more excellent way. Taking the Scripture books in order, he gives in the compass of a few pages such a synopsis of the contents of each book as exhibits its connection and place in the organism of revelation. The points of transition from book to book are also indicated. We can imagine no more fruitful subject for a series of week-evening lectures than the subject of these volumes. The materials are supplied ready to hand. All the preacher needs to do is thoroughly to assimilate them, and give them a shape according to circumstances. Critical questions are wisely avoided. But here and there finger-posts are set up. Thus, on the unity of Isaiah, the author says:—"We adhere to the belief of the unity of authorship from the first chapter of this book to the last; but we do not deny that there are plausible grounds for disputing it, and we do not consider that

the acceptance of the opposite view subverts the authority of the book as an integral part of inspired Scripture." He then gives six pertinent reasons in support of his opinion, one of them being that the critical objection based on the naming of Cyrus beforehand, is part of the critical denial of the possibility of prophecy. Dr. Fraser's new edition has, if it needs it, our hearty endorsement.

The Bible an Outgrowth of Theocratic Life. By D. W. SIMON. Edinburgh: T. & T. Clark. 1885.

Dr. Simon contrasts the old theory of ready-made revelation with the modern "historical view," which fixes its attention chiefly on the genetic process. Very wisely and justly, instead of attacking the former, he devotes his strength to expounding the latter. Probably, as discussion goes on, it will be found that there is no such opposition between the two views as at present appears, the old theory merely emphasizing the result, the new one studying the process. Dr. Simon says:—"I believe most fully both in revelation and inspiration, as those words have been understood by the best and greatest teachers of the Christian Church." The title of his book well describes its substance. He maintains that Jewish sacred literature, just like any other, is an expression of Jewish thought and life; but he would not allow that the latter stands on the same footing as that of other nations. He shifts the supernatural element from the literature to the life. No other history is "theocratic" in the same sense. The Jewish history being what it is, the Scriptures could not be other than they are. The analysis and exposition of the human and divine factors in chs. vi., vii., and viii., are admirably done. The three following chapters on the Mission of the Jewish Nation, the Character of the Hebrew Literature, the Relation of the Scriptures to Subsequent Ages, are equally suggestive. The author does not profess to offer a complete theory; he only makes contributions towards one. The facts of the case, which he brings out, must of course be taken into account by any theory. As a tentative statement, the work is fresh and stimulating in the extreme.

The Pulpit Commentary. Edited by the Rev. Canon H. D. M. SPENCE, M.A., and the Rev. JOSEPH EXELL, M.A. Ephesians, Philippians, and Colossians. London: Kegan Paul & Co. 1886.

This portly volume contains the exposition, homiletics, and homilies with which students of the Pulpit Commentary are familiar. Professor Blaikie supplies exposition and homiletics on the Epistle to the Ephesians; the Rev. B. C. Caffin on the Philippians, the Rev. G. G. Findlay on the Colossians. The homilies are by half-a-dozen skilled contributors who have done their work well. The good sense, thoroughness and indepen-

dence of Mr. Findlay's exposition are worthy of special praise. He has availed himself of all lights thrown on his subject by the labour of other commentators, but exercises his own judgment on every point with fruitful results. Students will find no difficulty slurred. Mr. Findlay's style is clear and forcible, his scholarship accurate, and his criticisms suggestive. All the work embodied in this volume is painstaking—and judicious.

The Genius of the Fourth Gospel. The Gospel of St. John, Exegetically and Practically considered, containing One Hundred and Two Homiletic Sketches and Fifty-one Germs of Thought. By DAVID THOMAS, D.D. In two vols. London: R. D. Dickinson. 1885.

Those who gain help from such aids to preaching as these could scarcely find a better guide than Dr. Thomas. The volumes are part of the Homiletical Library, which is a reproduction of all his writings. The Gospel is taken up *seriatim* with exegetical remarks and suggestive sermon outlines. In the "Germs of Thought" there are also many valuable hints. No. 21 on "Harvest" has one awkward sentence, "The fruits of the earth which have reached maturation were a few months ago in a most nascent state." We are sorry, also, to find Dr. Thomas set his many readers a bad example of spiritualizing an ordinary expression in the Outline on "Winter as an emblem of death," based on the words, "And it was winter."

The Work of the Holy Spirit. By JAMES S. CANDLISH, D.D. Edinburgh: T. & T. Clark.

This is one of the useful "Handbooks for Bible Classes and Private Students." Dr. Candlish divides his careful study of Scriptural doctrine under two heads—the Holy Spirit and His work in our salvation. The first branch of the subject includes the teaching of the Old and New Testament as well as that of the creeds; the second summarizes each point of the Spirit's work for Christ and the believer. The little book is a complete and judicious summary of Bible teaching on one of the most important of all subjects, which receives far too little attention from the church.

The Millennium; or, the Coming Reign of Christ Spiritual, not Personal. By the Rev. E. STORROW. London: John Snow & Co. 1886.

A sensible, timely, and to our minds a convincing book. Mr. Storrow has spent the best years of his life in the propagation of the Gospel in India, and is not content to leave the whole economy of grace under the slur

which so many Millenarian theorists cast upon it. He examines every leading argument, deals with all the great passages and puts his own views in a crisp, lucid fashion which gives his little volume great interest. The views he advances on "The future of the Jews" whom he confidently expects to be won for Christ by the patient labour of the Church are as judicious as all the other opinions expressed in a little volume which deserves to have a very wide circle of readers.

Christ and the Jewish Law. By ROBERT MACKINTOSH, B.D., formerly Cunningham Scholar, New College, Edinburgh. London: Hodder & Stoughton. 1886.

In our overpress of matter for the present number of our journal, we cannot attempt to give any account of this able and important book. We know of no English work dealing formally with the subject. We have only space to recommend the volume as well-written, acute, thoughtful, and reverent.

The New Moral Creation; or, Light on the Problem of the Ages. By the Rev. JOHN COOPER. Edinburgh: Macniven & Wallace. 1885.

Mr. Cooper's volume consists of three smaller publications, now gathered together under one title. His aim is to show the reasonableness of Christianity so as to commend its most prominent doctrines to readers of the present day. "Christian Evolution" is a thoughtful and suggestive study of the Divine process in human redemption. The little Appendix "on the Revision of Creeds" aims to show what we at least should take for granted, that Churches should be willing to revise their formularies with all the new light they gain by the progress of Christian thought. But Mr. Cooper makes no attempt to show what needs to be done. Perhaps the second part of his volume, on the "Future of Mankind," indicates the direction he would take. How weak he is here may be seen from two inferences which he draws. When our Lord says that it would be more tolerable for Tyre and Sidon in the day of judgment than for Chorazin and Bethsaida, he remarks, "The meaning of these words *may* be that the light denied to Tyre and Sidon in this world will be afforded to them in the next." And the expression that the sin against the Holy Ghost shall not be forgiven, "neither in this world, nor in the world to come," he says "certainly implies, if it does not distinctly teach, that there are *other* sins forgiven in the after stages of existence." A man who can draw such strange inferences seems to us a sadly untrustworthy guide. In his introduction to this part of the volume he says that the perfection visible in the creative plans of God, which runs down even to the minutest creature, awakes the thought, "Is it possible that man, the noblest of all God's works in this mundane

sphere, can in one solitary instance fail, ultimately and hopelessly, in reaching the original Divine ideal? The sight of the Cross, too, makes him think whether it can be possible that such a wealth of self-sacrifice "can contemplate anything short of the final home-bringing to the Divine fold of every poor wanderer?" Only the fact that Mr. Cooper has a theory to support could make him forget all that He who hung upon the Cross said and felt about those who should go away into everlasting punishment.

Doctrine and Doubt; or, Christ the Centre of Christianity. By the Rev. S. MACNAUGHTON, M.A. London: Hodder & Stoughton.

These sermons or "sermon-lectures" have several excellent features. They frankly recognize the existence of widespread doubt respecting Christian doctrine. They touch on all the essential points of that doctrine in order, their treatment is popular—*i.e.*, neither "profound or subtle," nor superficial, their style is plain and unaffected. They at least prove the possibility of treating such subjects in the course of an ordinary ministry with advantage. Still, we doubt the wisdom of publishing every ordinary course of addresses in an age which groans under the weight of talk and writing.

1. *With Christ in the School of Prayer: Thoughts on Our Training for the Ministry of Intercession.* By the Rev. ANDREW MURRAY.
2. *The Lighthouse of St. Peter, and other Addresses.* By the Rev. A. N. MALAN, M.A., F.G.S.
3. *Christ, Our Life: Readings for Short Services and Quiet Meditation.* By the Rev. FREDERICK WHITFIELD, M.A.
4. *Bible Heathens; or, Church and World in Scripture Times.* By CHARLES MARTIN GRANT, B.D., Minister of the Parish of St. Mark, Dundee.
5. *Heavenly Relationships.* By MARY E. BECK.
6. *The Uncrowned Prince in Israel. A Cairn on a Neglected Grave.* By the Rev. C. W. MACKENZIE, Minister of Durcisdeer. London: James Nisbet & Co. 1885.

1. Mr. Murray's is a devout book, written in order to rouse Christians to expect great blessings in prayer. It contains thirty-one short "lessons" on various texts, with a prayer at the close of each. Some illustrations

of the subject are given in a brief paper on "George Müller and the Secret of his Success in Prayer." The style is simple and impressive, and though it never rises high, and would be the better for a careful revision, it will be helpful to many readers.

2. Mr. Malan's strange title is drawn from a forced analogy between St. Peter's famous words, "Add to your faith, virtue," &c., and the building of the third lighthouse on the Eddystone Rock. Some of the other addresses are based on points that also strike us as far-fetched. Nevertheless this is a pleasant book, full of good lessons. The beautiful address on "Are you saved?" is an excellent protest against the veiw which ignores the constant perils of Christian life and the need of abiding in Christ. Mr. Malan, however, somewhat ignores the witness of the Spirit to our present acceptance. Surely it is right to help our friends to find that assurance.

3. Mr. Whitfield's addresses are intended for use in daily meditations, or for short services in the sick room. Brief and practical, they are admirably adapted for such purposes, and will carry a blessing into many a troubled heart. The verses added to each address are carefully chosen and supply a pleasant application to the writer's earnest words. It is rather a pity to find the expression, "Jesus only" perverted again as it is in the first of these readings.

4. The somewhat startling and, we must add, misleading title *Bible Heathens* simply refers to those Scriptural characters that do not belong to the Jewish Church. Mr. Grant's purpose seems to be to give his readers some glimpses of the Gentile world, which he used for a course of Sunday evening lectures. The history from Job to Cornelius affords him a wide field from which to gather his illustrations of God's care for all his children, Gentile as well as Jew, and his readers will follow him with interest. The sketch of Balaam is discriminating and suggestive. "Cyrus" is more emphatically a lecture. It is mainly filled up with secular history, though the work of that great prince for the Jews is also described. We are glad to find a Scotchman holding such views on election. Mr. Grant speaks of God's intention that the church should proclaim Divine love, and prepare a people for the coming of the King. "This is her election—not, I repeat, of favouritism, but for work—an election that does not imply the rejection of any outside herself, any more than the choosing of an officer implies the refusing of the private he is to drill, or of the teacher the pupil he is to instruct. And this is an election in which every one can believe without dishonouring God."

5. *Heavenly Relationships* treats in eight brief chapters of the believer's relations to the three persons of the Trinity in a practical and profitable way. The frequent quotation of prose and poetry brightens up the pages, so that this book ought to be welcome in sick rooms, and in devotional reading. It is a pity to find one word with somewhat mean secular associations used of the Divine care. "Oh, the loving protection

of our Great Caretaker!" strikes us as singularly unhappy. The chapter on "The Maternal Aspect of God's Love," is based on the words "as one whom his mother comforteth, so will I comfort you." This idea is forced, but the reflections based on it are refreshing. A book with the title *Heavenly Relationships* can scarcely be called complete which has no reference to either the glorified saints or the angels of God.

Dr. Mackenzie's book is a tribute to Jonathan, David's friend. The seven sermonettes have capital titles, and will awaken interest. We like the idea of this volume better than its execution. Jonathan's sublime sacrifice and unchanging friendship have not always been sufficiently acknowledged, and this tribute is timely. But Mr. Mackenzie is, or tries to be, too eloquent. We may give one sample of his style; other illustrations might be found in abundance:—"Since the hour when a young earth blushed in beauty to the admiring gaze of the latest comer to her shore, human eyes have not ceased to turn with kindling rapture towards a setting sun." All who love such eloquence will find it here.

Daily Life. London: J. Whitaker.

This volume, by the author of *The Daily Round*, is one which we can heartily recommend. We do not know that we have ever met with a more wise, or practical, or quickening book of its kind. It consists of very short essays or paragraphs on the duties, the trials, the consolations, the doctrines, and the hopes of the Christian life. The illustrations with which the volume abounds are apt, homely, and very telling. It is the very book for a Methodist class-leader. It is good for all earnest Christian people.

A Translation of the Old Testament Scriptures. From the Original Hebrew. By HELEN SPURRELL. London: J. Nisbet & Co. 1885.

This is a remarkable work. We are not surprised to find from the preface that the translator's time has been almost entirely occupied upon it for many years. All the passages to which we have turned give evidence of thorough scholarship. The readings adopted may be challenged, but they are suggestive. The work would have been largely improved by full notes on some renderings, but we suppose that space would not allow of these. The arrangement adopted in the Book of Psalms enables the reader to catch the rapid transitions from one person to another. Here again the translation is especially valuable for its suggestiveness. Even a glance at Psalm xx. leaves a lively impression as to the grandeur of the antiphonal psalmody of the Temple. We can congratulate the accomplished translator on an excellent piece of work.

Your Sundays. Fifty-two Short Readings, especially intended for Schoolboys. By the Rev. GEORGE EVERARD, M.A. London: James Nisbet & Co.

The readings are not only short, but full of good sense, apt, Scriptural, free from sentimentalism, direct and pointed.

The Revised Version of the New Testament Criticised. By the Rev. GEORGE BARTLE, D.D., D.C.L. London: Longmans. 1885.

Dr. Bartle here makes a tremendous onslaught on the New Testament Company of Revisers. We cannot follow him in detail through his formidable array of charges. Among other indictments he accuses the Revisers of ignoring the most ordinary rules of grammar, and says that the Revised Version needs more correction than the Authorised Version. We certainly need a revision of the Revision, but Dr. Bartle, though he may present a strong case, is somewhat of a carping critic, as his remarks on the use of italics in Matthew ii. 12 may show. He wishes to know on what authority the Revisers have put "*of God*" in italics. Even a glimpse at the original would have told him why.

Helps to the Study of the Bible. With a General Index, a Dictionary of Proper Names, a Concordance, and a Series of Maps. Oxford: Printed at the University Press.

We have commended this most useful little book before. In its present form it is literally perfect, leaving nothing to be desired, either for beauty of appearance or handiness for consultation.

PHILOSOPHY.

Works of Thomas Hill Green. Edited by R. L. NETTLESHIP. Vol. II. London: Longmans, Green & Co. 1886.

WHEN we say that this volume is in every way worthy of that which preceded it, we pronounce a eulogy so emphatic as to relieve us from the duty of doing more than indicating briefly the nature of its contents. It consists, then, of lectures, some professorial, others tutorial, delivered in Balliol College between 1874 and 1880 inclusive. The subjects handled are the Kantian metaphysics and ethics, the formal and empirical theories of logic, and the principles of political obligation. The lectures on Kant will be read with interest by all who are acquainted with Prof. Caird's

work on that thinker, as, though in themselves a mere fragment, supplying, from a point of view substantially identical with that of Prof. Caird, a more detailed exposition and criticism of some of the obscurer portions of the "Critique of Pure Reason"—*e.g.*, the theory of time and space, and of that little known but extremely important work, the "Metaphysic of Ethics," with which Prof. Caird does not deal. The logical papers show how Green's large and lucid intellect—

> "Though deep, yet clear; though gentle, yet not dull:
> Strong without rage, without o'erflowing full—

was working in the direction of a theory of reasoning which should transcend both the barren scholasticism of Mansel and the crude empiricism of Mill and Bain. They should prove of the utmost value to those who are in search of a truly scientific logic. The lectures on the principles of political obligation seem to us the best contributions yet made in this country towards a theory of the relations between the State and the individual. The theories of Spinoza, Hobbes, Locke, Rousseau, and Austin are reviewed with admirable acuteness and subtle discrimination between the elements of truth and error contained in each of them. The cardinal principle, that rational will, not force, is the basis of the State, is shown, as against Austin, to be the ground of all human rights; the theory of punishment, of proprietary rights, the limits of State interference, morality, and family life, are all ably handled; the relation of the several branches of the subject to the author's general metaphysical theory being apparent throughout. We close the volume with a profound sense of the irreparable loss which English philosophy has sustained in the premature death of this truly noble thinker.

The Principles of Morals. Introductory Chapters. By J. M. Wilson, B.D., and T. Fowler, M.A. Oxford: Clarendon Press. 1886.

This is the first part of a comprehensive work on Theoretical Ethics projected by the former and the present President of Corpus Christi, and the only part finished by the former president before his death. Mr. Fowler leaves it in doubt whether the work will be completed, notwithstanding the numerous passages which refer the reader for fuller exposition to subsequent portions of the work. On p. 5 we have a synopsis of the topics to be discussed, and the last paragraph of the volume indicates the line of discussion to be followed. Still the present fragment has great independent value. Lucid, concise, suggestive, it will be of great service to students "as affording an introduction to Moral Philosophy and containing a brief sketch of the leading English moralists." The latter "sketch," forming the subject of the second chapter, is exceedingly well done. The salient points in the teaching of Hobbes, Cudworth, Clarke,

Hutcheson, Butler, Hume, Price, Kant, Mandeville, Hartley, Locke, Tucker, and Bentham, are vividly indicated and criticized. Emphasis is justly laid on Hobbes, Hume, and Bentham as standing at partings of the ways. Their theories are also shown to be links in a chain of development. Some surprise may be felt at the occurrence of Kant's name in the list. This is explained by the circumstance that in one respect his theory is identical with that of Cudworth, Clarke, and Price—namely, in its *à priori* character. The *à posteriori* method, for which Dr. Wilson argues in his third chapter, is rejected by Kant as insufficient and degrading. Little as Dr. Wilson may agree with the conclusions of writers like Hume and Bentham, he is still in sympathy with their method, which is his own. The fatal defect, according to him, in the *à priori* intuitional view is its unhistorical, abstract, unverifiable character. In it "no attempt is made to trace the growth and history of moral ideas, or to compare one stage of moral progress with another. . . . . The eternal differences of things, the universal reason, the intelligible world, &c., are causes or explanations which admit of no verification, and which therefore leave morality without any solid foundation or justification." Whether the author would exclude the intuitional element absolutely, is not clear. The judicial impartiality of the volume is admirable. While according the highest praise to Hume's method of inquiry, the writer does not fail to note that he "appears studiously to avoid the employment of the term 'conscience,' a course which can hardly fail to create in most minds a suspicion that the principle itself is treated with disrespect." The first chapter, in which, after defining the relation of ethics to other sciences, the author indicates the mutual bearings of ethics and religion, is full of interest. To the question, Why a Christian needs an independent science of ethics, he replies, first, that no religion, not even the Christian, covers the whole field of moral conduct; and secondly, that every advanced religion, especially the Christian, appeals for its evidence to the moral consciousness of mankind—excellent and sufficient reasons. A science of morals benefits religion by purifying and exalting religious sentiment, and the Christian religion benefits morals by supplying new motives to a virtuous life, by presenting to man a living type of virtue, and in many ways. "The desire and effort to imitate Christ has probably exercised on the Christian world an influence incomparably deeper and wider than that exerted by those maxims and precepts which we commonly regard as constituting the moral contents of Christianity." The volume will prove a most attractive one to all students of ethics.

HISTORY AND BIOGRAPHY.

Personal Memoirs of U. S. Grant. In two volumes. Vol. I. Sampson Low & Co.

The late President assures us that he never meant to write for publication. A fall from his horse, which confined him to the house, followed by money losses due to the rascality of a business partner, made him glad to accept an invitation from the editor of the *Century Magazine*. He found writing so congenial that he determined to go on; and, though the illness which resulted in his death delayed the work, he was able last July to speak of the second volume as in fair progress.

When we reflect on the number of Irish and Germans who rose to high command during the war, we see why he begins his narrative by claiming that his family "is American, and has been for generations, in all its branches, direct and collateral." Matthew Grant, who reached Dorchester, Massachusetts, in May, 1630, belonged to the namesake town in the old country. Two of his descendants held commissions in our army in the war against the French and Indians. Noah Grant, the son of one of them, was at Bunker's Hill, and served on the American side till the fall of Yorktown. He was a spendthrift, and his family had to shift for themselves; one son, father of the President, finding a home with Judge Tod, of Ohio, and afterwards working (as a tanner) for the father of the famous John Brown, and (shortly after the birth of Ulysses, in 1822) settling at Georgetown, Ohio, of which place he was the first mayor. In those days higher education was not to be had in the West, and young Grant "had never seen an algebra till after he was appointed to West Point." His free country life, however, gave him self-reliance and physical strength. "There was no objection to rational enjoyments," including horse-dealing; and he tells with great gusto how he, when fifteen years old, swapped one of his father's horses for an animal that had never been in harness, and, after hair-breadth escapes, succeeded in driving it home (forty-five miles) by tying his bandana over its eyes. His appointment to West Point was given by the Hon. T. Hamer, a strong Democrat, by way of *amende* for having quarrelled with his father at a debating society; but the lad by no means intended to adopt the army as a profession. His idea was to get on in mathematics (in which his marks were always as high as they were low in French, and, he tells us, *in conduct*), to secure an assistant-professorship at West Point, and then take a post in some respectable college. The magnificent figure of General Scott in full uniform reviewing the cadets seems to have changed his views; his health, too, made plenty of open air a necessity for him, and the threatened war with Mexico sent him down to Camp Salubrity, in the extreme west of Louisiana. Here he soon got rid of the cough and

other symptoms disquieting to one who had already lost two brothers from consumption and was to lose another brother and a sister from the same complaint. "My life was saved," he reflects, "by exercise and exposure, enforced by an administrative act (the occupation of Texas) and a war both of which I disapproved." The Mexican war he "regards to this day as one of the most unjust ever waged by a stronger against a weaker nation. It was an instance of a republic following the bad example of European monarchies. The Southern rebellion was largely its outgrowth. We got our punishment in the most sanguinary and expensive war of modern times." The ease with which Generals Taylor and Scott brought the Mexicans to submission is in marked contrast with the stubborn resistance that, backed by the moral power of the United States, they afterwards offered to France. Palo Alto was a battle of artillery, in which the American guns did great execution, the Mexican shot killing only nine men. In Monterey city, young Grant, who had volunteered to take news that the ammunition was failing, was under fire at every street corner; and, after taking his full share in other engagements, he won great credit by seizing a church tower near San Cosme, mounting a howitzer on it, and dropping shells on the unsuspecting enemy. He is full of praise for General Scott, though he admits that "the Mexican army of that day was hardly an organization." "The strategy and tactics of the various engagements which led up to Molina del Rey were faultless, as I look upon them now after the lapse of so many years." And fault-finders he reminds that "things are seen plainer after the events have occurred, and the most confident critics are generally those who know least about the matter criticized."

When the war was over, his regiment was ordered to the Pacific side; and, after losing a great many men at that fever-hole, Chagres, they got to San Francisco, of which in its early state, when "it was growing like a dream," we have some interesting notes. Then for a while the future President, now married, became a clerk in his father's store at Galena. He began to dabble in politics; was a Know-nothing for a week, and voted for Buchanan, but had become fixed in Republicanism before Secession began. As to the legal right of the South to withdraw, he was uncertain. On p. 220 he says:—"The Constitution did not apply to the contingency of 1861. Had its framers foreseen such a contingency, they would have sanctioned the right of States to withdraw rather than that there should be war between brothers." Yet on the next page he is "sure the fathers would have resisted secession could they have lived to see the shape it assumed." There seems to have been strange blindness on both sides. Grant shared Seward's view that "the war would be over in ninety days;" while Jefferson Davis agreed "to drink all the blood spilled south of Mason and Dixon's line, if there should be a war." Into the details of this war we need not enter. We commend General Grant for his honest endeavour to do justice to every one

—a most difficult task when he has to tell of battles like Shiloh, where not only both sides claimed the victory, but where almost every general officer engaged took a different view of the various manœuvres. Shiloh quite undeceived Grant as to the endurance of the South; thenceforward, instead of sparing stores, &c., he destroyed all that he could not bring within his own lines, believing that the most merciful plan was to exhaust the enemy as soon as possible. His West Point training he found invaluable; he remembered enough of the character of many of his opponents to foresee how they would act under given circumstances; and he remembered that his old class-mate, Lee, was only mortal after all. This volume does not take us much beyond the fall of Vicksburg. Every one must hope that the second volume will be given in the exact state in which its author left it. It will doubtless contain reflections, "crowded out" from the work before us by the amount of military detail, but much more interesting than that detail to the majority of English readers.

A Life of Joseph Hall, D.D., Bishop of Exeter and Norwich. By the Rev. GEORGE LEWIS, B.A. Oxon., M.A. London. London: Hodder & Stoughton. 1886.

There are not a few ministers who have learnt to prize, more for their influence on pulpit exposition and Bible-class work and on heart and life, Bishop Hall's *Contemplations*, than for their fascinating and stimulating spiritual eloquence, even the incomparable discourses of Jeremy Taylor. Bishop Hall's style, indeed, is very rich, sweet, and classical—albeit the words, in his case as well as in Jeremy Taylor's, are too many of them foreign and jargonish in form and sound; but it cannot be said of his work that *materiem superabat opus;* on the contrary, his matter surpassed his style, excellent and finished as that is. He is one of the greatest writers even of the Church of England. The discipline of profound thought and of the highest culture may be recognized in almost all he wrote. He introduced a new style of exposition and of homiletic writing, and he also made an epoch in the mere literary form of the more serious writing of English moralists and divines. Our language in its development owes not a little to Bishop Hall.

But the history and character of the man, rather than his powers as an author, great as these powers were, are the great attraction in the case of the famous Carolan Bishop of Exeter and Norwich. His was a naturally strong character—not destitute of ambition, full of sound sense and combative force, and strongly seasoned with satire; and yet his saintliness, his gentleness, his large toleration (for his age) came to be perhaps his most remarkable personal characteristics.

Hall was bred a Calvinist, but grew into a moderate High Churchman. At one period of his life he was a great controversialist. The Presby-

terians felt his power. Milton discredited himself by the style in which he assailed him, not only with invective, but with indecent abuse. In the end, however, Hall rose into a sphere above controversy. When the power of his order was in the ascendant, he sheltered those who were stigmatised as "schismatics." When it was his turn to be persecuted he bore his hardships patiently.

He was, however, by no means a monster of perfection. His life contains the evidences of failings and of faults. Especially did he transgress by flattery—flattering not only Charles I., but Charles II. That was a vice of the age—the age of the "divine right of kings." He was not a time-server, but he was a supple subject. Whatever, however, may have been his imperfections, he was a great man, a great saint, an admirable Christian preacher and teacher. Mr. Lewis has done his work *con amore* and with admirable taste. We do not agree with his High Church views of Church and State, nor of Commonwealth politics; we do not regard Charles I. in the light in which he seems to regard him. But he is a mild High Churchman, and has done us all a great service by writing, with careful research, this interesting and handy Life of Bishop Hall.

The Trial and Death of Socrates: being the Euthyphron, Apology, Crito, and Phædo of Plato. Translated by F. J. CHURCH, M.A. London: Macmillan & Co. 1886. (Golden Treasury Series.)

So far as we have been able to test it, we have found this translation both accurate and readable. The Introduction is a little diffuse and rambling, which is the more to be regretted, because a little revision would have made it a very creditable performance.

English Constitutional History: from the Teutonic Conquest to the Present Time. By THOMAS PITT TASWELL-LANGMEAD, B.C.L. Oxon., late Professor of Constitutional Law and History, University College, London. Third edition, revised. With Notes and Appendices by C. H. E. CARMICHAEL, M.A. Oxon. London: Stevens & Haynes. 1886.

This third edition of a convenient and standard work has been revised, annotated, and appendixed, with loving care and painstaking, by the University contemporary and close friend of the author, whose distinguished course was brought to a close by an early death. In the annotations, Mr. Carmichael has made use of M. Glasson's "elaborate and interesting" *Histoire du Droit et des Institutions Politiques de*

l'Angleterre, and also of Mr. Digby's *History of the Law of Real Property*, Mr. Darrell's *History of Taxation*, and Mr. Clifford's *Private Bill Legislation*. He has also availed himself of collateral illustrations furnished by the publications of learned societies. The appendices relate to Frankpledge, Tithes, and some other points of interest and importance. The volume as a whole is specially suitable for students at the Universities and the Inns of Court, but will be also found valuable to the general reader. We may observe that it contains the texts of Magna Charta, the Petition of Right, the Bill of Rights, and the Act of Settlement, which constitute collectively the written code of our English Constitution. There is a copious index, which greatly adds to the value of this volume.

History of Methodism in Ireland. Vol. II. *The Middle Age.* By C. H. CROOKSHANK, M.A. London: T. Woolmer. 1886.

If the first volume of this work was good, this, we think, is better. The interest attaching to Wesley's movements is lacking, but the material is fresher; it relates to subjects more entirely new and unfamiliar to the general or even to the Methodist reader. The work is very well done—clear, succinct, and well-written. The most characteristic points in the history of Irish Methodism are included within the scope of this volume. The separation, as to certain points, between English and Irish Methodism, after the death of Methodism, is here explained. Irish Methodism was identified, far more strictly than English Methodism ever was, with the English Church. In Ireland there was no such organized independence of the Church of England as English Methodism maintained in London and in Bristol. Irish Methodism included no Dissenters nor any tendencies in the direction of Dissent. It was deeply Tory in Church and State. Hence when English Methodism separated itself from the sacraments of the Church of England after 1795, Irish Methodism refused to follow the example. Similarly, the new regulations by which an ecclesiastically defined status was in 1797 given to the laity of English Methodism were not accepted in Ireland. Irish Methodism, in fact, insisted on the privileges of "home rule." Mr. Crookshank lets us understand that to a certain extent this was the all but inevitable result of the special circumstances of Ireland in Church and State, though he evidently regrets that Ireland was so tardy in following the English example. Twenty years later, Ireland took the step which English Methodism took in 1795. The organic development of lay officialism was yet more tardy in Ireland than the development of denominational independence. Many distinctions, and some more or less serious divergences, of the present day are the consequences of the initial divergences of ninety years ago. Nevertheless, all the time the English Conference has embraced in its general jurisdiction the Irish province of Methodism, and a due proportion of the "Legal Conference," the "Legal Hundred,'

have always been Irish Ministers nominated by the Irish Sub-Conference. We say *sub-conference*, for *affiliated conference* would be an improper and misleading description. He who desires to understand these matters in their historical detail must study Mr. Crookshank's history. The Irish division which began seventy years ago, on the sacramental question, was brought to an end a few years since, after the disestablishment of the Irish Church. The "Primitive Wesleyans," or "Clonites," were absorbed into the Wesleyan Methodist, or, as the Irish prefer to call it, the Methodist Church. These subjects, however, we must add, though of fundamental importance, occupy comparatively but a small part of this interesting volume. The histories of such men as Gideon Ouseley and as the founder of the Shillington family, and of such women as Mrs. Tighe, with many another less celebrated but not less worthy or useful, make up the tissue of the volume, which we warmly recommend to our readers.

Methodism in Marshland. By GEORGE WEST. London: Wesleyan Conference Office. 1886.

Given a tract of country where the Church of England has little social and territorial sway, and where there is no anciently rooted Dissent, there in England Methodism may be expected to take possession of the country. Especially is this the case where there has been recent development of either manufacturing industry or the resources of the soil. These conditions all meet in the case of the region called Marshland, and in which thousands of acres have been reclaimed and made very fertile, being in the first instance laid under water—the water of the Ouse, whose deposit of warp possesses remarkable fertilizing properties. Marshland is in Yorkshire, but borders on West Lincolnshire. The chief towns in Marshland are Goole and Snaith, but Epworth is a neighbouring town. Such local histories of Methodism as the one before us are of great interest to the antiquarian student of the earlier Methodist history. This little volume is full of interest. It is not, however, always clear or consecutive, and it is far from complete, especially in regard to the modern development of Methodism. One of the tables appended to the volume is so incomplete as to be quite misleading. It professes to give the "number of members in society, from the earliest recorded statement to the present time;" but whereas the earlier statements of the numbers relate to the territory now included within the Epworth, Snaith, and Goole circuits, or within the Snaith and Goole circuits, the later give only the numbers for Goole, no explanation being given as to the change of the included area. Thus in 1815, when the largest area was included, there were 1000 members; in 1847, when Snaith circuit included Snaith and Goole, there were 1,416 members; in 1885, the members seem, according to the table, to have declined to 400. But that is the number in the Goole circuit alone. In Snaith there are 434 members, and in Epworth, 639.

BELLES LETTRES.

Les Artistes Celèbres. Phidias. Par Maxime Collignon. Paris: Librairie de *L'Art*, J. Rouam.

This able monograph on Phidias will be welcomed by all who know the excellence of M. Rouam's art publications. The first two chapters focus such rays of light as are shed upon the early life of Phidias by ancient traditions and modern researches; two more are devoted to a detailed description of the Parthenon, so far as it is possible to recover the plan of the building by the help of an examination of the remains at Athens, in the British Museum, and elsewhere, and the account given by Pausanias. Most of the modern writers on the subject, both German and English, are laid under contribution. The last chapter is devoted to the later years of Phidias. The work is profusely illustrated with admirable engravings.

L'Art (J. Rouam) continues to maintain its high standard of excellence in all points.

Poems. By Jamin Willsbro. Philadelphia: B. F. Lacy. 1885.

These poems do not rise high, but they are not without merit. The first poem, on "Liberty," has the American stamp upon it. "To feel I need not lowly bend to birth" is joined by the poet to an outburst of praise that he is free from tyrant's power, and need worship no one on earth. "The Use of Evil" has a couplet of questionable morality:

> "Evil in its sum is wrong;
> Yet in part helps good along."

We must protest, too, against Mr. Willsbro's description of us all in one of the pieces which displays most poetic power—"Weaving the Web."

> "I thought that each being is weaving a net,
> To mesh his weak fellows, and win him his meat."

The Old World has not reached such a pass, whatever the New may be.

"Shadows" is one of the best pieces in the volume.

> "At Eve—which with her mantle grey
> Doth drape the second youth of day,"

is a pretty simile. Some of the closing pieces, like the "Epitaph" and the strange lines on "Matrimony," rather lower the tone of the volume. "The Lost Child" is an attractive piece. The book is beautifully printed, with good paper and wide margins.

What we Really Know about Shakespeare. By Mrs. Caroline Healey Dall. Boston: Roberts Bros. 1886.

Mrs. Dall's book will be prized by students of Shakespeare's personal and family history. She makes several valuable suggestions, and shows that Anne Hathaway could not have been the daughter of Richard Hathaway of Shottery. Her volume owes much to the labours of Mr.

Halliwell-Phillips, and other Shakespearian students, but it has a distinct place of its own, and will help to show that our greatest poet was neither low-born nor low-bred. The prominence given to Aubrey's statement that he was "in his younger years a schoolmaster in the countrie," and the suggestions about his Continental travel are of great interest.

Quest and Vision: Essays in Life and Literature. By W. J. DAWSON, Author of "A Vision of Souls, with other Ballads and Poems." London: Elliot Stock.

Of the essays contained in this dainty little volume, two passed under our editorial hand, and were originally published in this Review. Of the other four, some appeared in the *Wesleyan Magazine*. There is no preface to the volume, or, no doubt, what we have just stated would have been therein acknowledged. If we had not thought highly of the substance and also the style, the articles on "Religious Doubt and Modern Poetry," and on "The Poetry of Despair," would not have made their appearance in our pages. We have no doubt that our judgment as to the merits of Mr. Dawson's writing will be confirmed by general consent. The subjects dealt with, besides those we have named, are "Shelley," "Wordsworth and his Message," "Henry Wadsworth Longfellow," and "George Eliot." As to the last writer, we could have desired more searching discrimination and a firmer tone of moral criticism. But the volume, as a whole, is one of superior merit, both as to insight and style. Many of our best masters of prose have been poets. Few are the poets who have not been fine writers of prose—sweet or lofty, as the case may be, almost always pure and musical. Mr. Dawson has a true poetic gift, and these essays also show that he excels in prose.

1. *A Tale of a Lonely Parish.* By F. MARION CRAWFORD.
2. *Living or Dead.* By HUGH CONWAY. Macmillan & Co. 1886.

1. Mr. Crawford has written a somewhat weak story with perfect taste. His descriptions of English scenery and country home-life, so far as they go, are perfect. But, except Juxon, the Squire—and Juxon is but a second-class sort of person—there is not an original character in his tale. The author of "Mr. Isaacs" and "Dr. Claudius" is not, either as a weaver of plots or as a painter of characters, fulfilling the expectations which his earlier works excited.

2. The posthumous story, *Living or Dead*, like all its author's books, is very interesting. The characters, except the villain and his accomplice, are charming. There is no soil of sensuality about the book. But one bad lesson is pointedly taught—that, in order to track and get hold of a villain, a gentleman is at liberty to indulge in duplicity and fast life, as a companion of the evil-doer, to any extent short of actual "crime." This is a bad lesson indeed.

MISCELLANEOUS.

Oceana: or, England and her Colonies. By JAMES ANTHONY FROUDE. London: Longmans.

BORROWING the title under which Sir James Harrington, addressing Cromwell, described a perfect Commonwealth, "the growth of which should give the law to the sea," instead of, like Venice, accepting the law of its growth from the sea, Mr. Froude shows how by Federation we may yet form a far vaster Commonwealth than ever Harrington dreamed of. He begins with this subject; he devotes to it his concluding chapter. And in both he is exceeding bitter against the "Manchester School," which was ready to sacrifice the colonies as being, since Free Trade, no more useful to us than foreign countries, and to turn England into a vast collection of mills, blast-furnaces, and workshops, by which the world's needs should be supplied at prices which should defy competition. This is somewhat "slaying the slain;" for we fancy there are now-a-days very few politicians who seriously advocate disintegration; while the trade depression has forced us to feel that the position of world's purveyor is not a safe, even if it were an otherwise desirable one. Still Mr. Froude is quite right in calling attention to the impossibility of nurturing a sturdy race in the squalid alleys of big towns. The evil threatens to reproduce itself at the Antipodes. In New Zealand especially, the contrast between overcrowded Auckland, with its vast public works of problematical usefulness, carried on with borrowed capital, to feed this vast collection of "hands," and the thousands of acres lying close by, uncleared and wholly useless, is very painful. The fact that eleven million acres have got into the hands of as many thousand owners who are "holding for a rise," is chiefly accountable for this ugly feature in New Zealand social economy. Mr. Froude lays the fault partly on representative government; he would fain see a Crown colony with a governor, who for seven years should have full powers, and should only be called to account at the end of his term. Then, he thinks, Auckland would cease to be "an overcrowded beehive, the bees neglecting the natural flowers and feeding on borrowed sugar." With the exception, indeed, of the Cape, "where we have conciliated neither person nor party," and where we have made the worst of the Boers instead of the best to such a degree that "our one hold on them is their fear of the Germans," New Zealand struck Mr. Froude as the most unsatisfactory of the colonies which he visited. The colony and municipalities are both deeply in debt, and (despite the sale of Kauri pines at a rate which will exhaust them in thirty years) the debts are growing fast, and must grow, "with two houses of legislature, 160 members in all, each getting

200 guineas a year, each with an eye to his own interests." Whether Sir G. Grey's plan of peasant freeholders, or the rival scheme of large estates, owned by men with capital to develop them, is the better, Mr. Froude does not decide: "it is the old story again in a new country." Many Colonial Federalists wish to combine federation with differential duties against the foreigner, and argue that such duties would make everybody thriving all round. But this even Mr. Froude feels is visionary. "Separation," he says, "will be no work of the colonists, and, if it comes, it will be regarded as an injury to be neither forgiven nor forgotten." And that separation has gone out of the range of practical politics Mr. Froude thinks is due to the Franchise Bill. He is no Democrat; "but there are some things which only a democracy can do, and one of these is to bring about the unity of our Empire." To preach this unity, then, is the purpose of his book; and this accounts for the marvellously low price at which the cheap edition is published. The author looks to the working-man to bring about Imperial Federation—to set up the New Oceana.

Vestiges of the Natural History of Creation. By ROBERT CHAMBERS, LL.D. Twelfth Edition, with an Introduction relating to the Authorship of the Work. By ALEXANDER IRELAND. London and Edinburgh: W. & R. Chambers. 1884.

This twelfth edition of the *Vestiges of Creation* possesses no interest whatever, save of a purely historical character. A book on Natural Science which has been out of print for nearly a quarter of a century, would hardly be likely to have much intrinsic value, and it would probably never have been reprinted had not Mr. Ireland thought it necessary to make a public and authoritative statement in connection with its authorship. As is well known, this once famous work was published anonymously in 1844, but for some years it has been an open secret that it was written by Mr. R. Chambers. The main reason why Mr. Chambers wished to conceal the authorship was that "he was his brother's partner in a publishing business in which the rule had been laid down from the beginning of their co-partnery, to avoid, as far as possible in their publications, mixing themselves up with debatable questions in politics and theology." Mr. Ireland being the sole survivor of the secret, the divulging of which had been left to his discretion by the author, he now gives to the world a brief history of the book and its manner of publication.

The purpose of the author in writing the volume was, as he himself expressed it: "To show that the whole revelation of the works of God presented to our senses and reason, is a system based in what we are compelled, for want of a better term, to call LAW; by which, however, is

not meant a system independent or exclusive of Deity, but one which only proposes a *certain mode of his working*." This is an idea with which we are now so familiar that it calls for no comment. In the case of man, "science," as well as the Bible, favours the belief in a distinct and special act of the Divine Being, and if this were so with regard to man, why may it not also have been the case in respect to other creatures, the stages of whose development are not apparent, and whose introduction upon the earth Geology seems to teach was not a gradual and prolonged process?

Reminiscences of an Attaché. By HUBERT E. H. JERNINGHAM. London: Blackwoods. 1886.

Mr. Jerningham has been well advised to reprint from *Blackwood's Magazine* the racy reminiscences of this bright and pleasant volume. His position at the Paris Embassy brought him into contact with the leaders of society in that capital. The *bon vivant*, to whom one of the short sketches is devoted, is another type—not altogether agreeable to a man with limited resources. Mr. Jerningham's quick tongue led him into a strange scrape at the house of Alexandre Dumas, the author of *Monte Christo*. Dumas had invited the young attaché to dine with him at the time when his play *Antony* was revived at the Cluny Theatre. Jerningham had been told that it was a play to shun rather than to go and see. So when one of Dumas' friends expressed her regret that she had not yet been able to see it, the young fellow thoughtlessly advised her not to go. The words fell like a thunderbolt on the company. Happily for his own comfort and the success of the dinner, if not for his own frankness, he was able to turn his words, and throw the blame on the acting, not on the piece. Dumas' ponderous hand fell upon his arm with the words: "Très bien, jeune homme." The incident led the great writer to give his young friend a letter which he had written in justification of his play, which is here to be found in full. The references to the Countess Guiccioli, who loved Byron so passionately, is of historic interest. Mr. Jerningham's request for an autograph from Mr. Gladstone led him into another scrape in 1866. The Moderate Liberals had just dissolved a powerful Liberal Ministry upon the question of Reform. When Mr. Gladstone told Jerningham that to get the autograph he must ask a question and he would write the answer, he thoughtlessly asked what was the difference between a Moderate Liberal and a Conservative? The question evidently annoyed Mr. Gladstone. He replied that he thought he could not answer it, but the same afternoon he gave the following reply:—

"Strawberry Hill, June 24, 1866.

"The word Moderate, as far as my observation goes, does no great credit—according to the manner in which it is now used—either to the word Liberal or to the word Conservative. Every Liberal claims to be Conservative; every Conservative to be Liberal. I know of no solution of the question between them except the test of their works.

Yours very truly, W. E. GLADSTONE."

Many racy incidents might be added; but this is a book to be read by all who wish to have some pleasant glimpses of great men, and of walks of life known to few.

The "Gentleman's Magazine" Library; being a Classified Collection of the Contents of the *Gentleman's Magazine* from 1731 to 1868. *Archæology.* Part I. Edited by G. L. Gomme, F.S.A. London: Elliot Stock.

It was a happy thought to bring together in classified form the valuable antiquarian observations and discoveries scattered through the many volumes of the *Gentleman's Magazine.* The curious student sees at a glance the site and condition of many relics of the past—fossil forests, animals and fishes; tumuli; stone, flint and bronze implements; British villages, camps and fortresses; boats and canoes; the contents of caves and coffins. Clear evidence is given of the encroachment of the sea on the eastern coast. Fifty years ago one of the writers saw the remains of a large forest about a mile below high-water mark. Some of the explanations given in the extracts are antiquated enough; but this does not detract from the interest and value of the facts. The information relates to every part of the country, from Cornwall to Northumberland. The extracts are roughly classed under four heads—Geologic and Pre-historic, Early Historic, Sepulchral, Encampments, &c. The second part will deal with Stone Circles, Miscellaneous British Relics, and Anglo-Saxon Antiquities. The volume breathes of antiquity. The only modern reference we can find is the following:—"A correspondent at Ipswich mentions the fact of flint-arrows and spear-heads being manufactured at the present day at Brandon; and states that a person has been travelling with specimens, many of which he has succeeded in selling." The volume is tastefully got up, and does credit both to editor and publisher. An index adds greatly to its utility.

Why I would Disestablish: A Representative Book by Representative Men. Edited by Andrew Reid. London: Longmans & Co. 1886.

This slight volume is a compilation of paragraphs, passages, and short essays on the subject of Disestablishment, written, "not for the purpose of agitation, but of education." It begins with three or four short sentences from the pen of Joseph Arch, M.P., and ends with a passage from Professor Rowlands. Five Welshmen contributed ninety-two pages, being more than a third of the whole. From Scotland there are only three names, but all of weight; they contribute thirty-two of these small pages. The "representative" names from England are somewhat mixed, including, besides Spurgeon, Newman Hall, Dr. Parker, Dr.

Clifford, and three or four more of similar rank, such names as Mr. H. L. W. Lawson, M.P., Mr. Bradlaugh, M.P., and Professor Aveling. As might be expected, Mr. Osborne Morgan is among the contributors, though he has limited his writing to one page.

Manual Training the Solution of Social and Industrial Problems. By CHARLES H. HAM. London: Blackie & Son. 1886.

This volume is the work of an enthusiast, who is also a practical man, and is therefore well worth reading. At this moment the cry for manual training is loud in some parts of the States. As we have elsewhere stated in this Review, American public educationists have not seen their way to include technical training in the instruction provided generally by their "common schools." It has become a very frequent complaint against those schools, that the education they give is not often exact and sound in any branch of elementary instruction, but yet that it unfits and indisposes the scholars for manual employments. The movement of which this earnest and interesting volume is the advocate, is intended to provide practical instruction for youths and men such as may fit them for manual employment of all descriptions and of every grade. The writer "regards tools as the great civilizing agency of the world." With Carlyle, he says, "Man without tools is nothing: with tools he is all." In the course of his prefatory explanations he acknowledges his obligations to Colonel Augustus Jacobson, of whose daring suggestions as to manual training we have elsewhere spoken. This volume merits the special attention, at the present time, of English educationists.

Whitefield Anecdotes. Illustrating the Life, Character, and Work of the great Evangelist. By Dr. MACAULAY. London: Religious Tract Society.

Another volume of the Anecdote Series. Dr. Macaulay has a fine subject, and has laid the ample Whitefield literature under tribute to produce a good portrait of the great orator of the Evangelical Revival; his book forming the best little Life of Whitefield that we have met with. On page 117 Dr. Macaulay says that Whitefield never preached at the Foundery. This is a mistake. He once preached there on "the Decrees" in trenchant style, whilst his friend Charles Wesley was sitting behind him in the pulpit. It seems strange, too, to hear of Asbury (not Ashbury as it is printed by some slip) resigning his charge as superintendent of Methodism in America into the "more vigorous hands" of Thomas Rankin. Perhaps Methodism never produced a more vigorous man than Francis Asbury.

WESLEYAN CONFERENCE PUBLICATIONS.

1. *Wayside Songs of the Inner and the Outer Life.* By the Rev. HENRY BURTON, B.A.
2. *The Good Earl.* A Brief Sketch of the Career of the Seventh Lord Shaftesbury. By the Rev. EDWARD LIGHTWOOD.
3. *At Miss Lamblion's.* A Story of Preparatory School Life. By RICHARD ROWE. London: T. Woolmer. 1886.

1. Some of Mr. Burton's songs have already won a wide circle of readers in various magazines. Gathered together in this tasteful volume, they will soon become favourites with all lovers of sweet and sacred poetry. Some of the deepest questions of the inner and outer life are happily touched upon in these graceful verses. The poems are brief, but well rounded and melodious, so that they will form pleasant companions for a quiet moment, and will win a place beside Miss Havergal's poems.

2. Mr. Lightwood has compressed into this attractive shilling volume the main facts of Earl Shaftesbury's noble life. The story is concisely and clearly told, and is full of interesting incidents. The style and the illustrations make this the most attractive life of "the Good Earl" that has yet appeared.

3. *At Miss Lamblion's* is one of the best stories of school-boy life we have read. Full of quiet fun and crowded with adventure, it will teach many a capital lesson. It deserves a wide circulation.

Canadian Life and Scenery; Pilgrim Street: Life of Oberlin: Adventures in New Guinea. London: The Religious Tract Society. 1886.

We are glad to find that the Religious Tract Society is taking a share in the supply of cheap books. It has rendered conspicuous service in this respect ever since its foundation; but the new library, of which we have received the first four volumes, is a notable step in advance of all previous efforts made by the Society. The volumes are tastefully got up, with illustrations which add to their attractiveness. Each book has 192 pages. The price in paper covers is threepence, in cloth sixpence. The series will contain books suitable for Sunday and devotional reading, so that it has objects beyond those aimed at by the other cheap reprints which have attracted so much attention. The gist of the Marquis of Lorne's valuable work on Canada is now within reach of all readers. Mr. Chalmers' *New Guinea* is a most interesting record of missionary labour. *Pilgrim Street*, by Hesba Stretton, has in full measure the characteristics which have made the writings of the gifted and sympathetic authoress so justly popular. This series ought to have an immense sale.

SUMMARIES OF FOREIGN PERIODICALS.

Revue des Deux Mondes (April 1).—M. Louis Wuarin's article on "Anglo-Saxon Socialism and its New Prophet" is an account of Henry George and his writings. Mr. George's grandfather emigrated from this country to America at the beginning of the century. Born at Philadelphia in 1839, Henry George found his way in early life to San Francisco, whither the gold-fever was drawing multitudes of adventurers. His son gave up mining and turned to his trade as a printer. He carefully improved his leisure hours, and by-and-by devoted himself to journalism. Various disappointments, caused by his unwillingness to become the tool of party leaders, threw him back on his studies, with results familiar to all the world. His books, and his visit to England, which attracted so many restless spirits to the socialistic flag, are here described. The writer shows that on several occasions Mr. George went to an outrageous extreme, and called on his hearers to take possession of the land without paying any indemnity.

(April 15.)—M. Leroy Beaulieu discusses with great force and judgment the question of separation between Church and State in France. He shows that separation would not be a solution of the difficulty. In the present position of parties the renunciation of the *concordat* would simply be a declaration of war against the Church and the Christian faith. The Government that undertook it would soon go to the ground. He criticizes the scheme of M. Yves Guyot, who recognizes that a large part of the French people are loyal to the Church, and would not push for separation between Church and State in all the 36,000 communes, but would allow those that wish to proceed with the matter. This, as M. Beaulieu clearly shows, would simply be to introduce war into every municipal council and into every family. It would be disgraceful to leave a great question to the caprice of the municipalities. He points out that when the State ceases to intervene in the affairs of the Church the clergy will become more than ever an army acting at the command of their generals, the bishops, under the supreme direction of the Pope. The bishops are now chosen as men of moderation and good sense; then they would be extreme partisans. If, under the influence of Radicalism, France dispersed its clergy, exiled the monks, and closed the churches after a series of sanguinary struggles, it would be compelled to issue another *concordat*, and would thus come back again to her present position.

(May 1.)—M. Duruy closes his papers on methods of instruction in France by an article entitled "Public Instruction and the Democracy." He describes the history of the past seven or eight years as "an incessant and tyrannical effort on the part of the democracy to set its hand on the youth of the country," and bring them under its yoke. The expulsion of the Jesuits and the reform of classical study have been part of this bitter crusade. M. Duruy describes the principal laws which have been passed, and shows with what harshness instructors of youth have been treated by the Republic. The struggle is not yet over, for the democracy knows nothing of those finer instincts which lead other victors to lay down their arms, and not push their conquest beyond reasonable bounds.

(May 15.)—M. Leroy Beaulieu writes an article on "The Fall of Prices and the Commercial Crisis in the World." He shows that while all countries are suffering, France has had the heaviest losses, and examines the cause of the depression. His warnings against empirics and charlatans are timely and forcible. The Protectionists are the first of these. The deplorable effects of their action in many departments of trade are pointed out. The whole sugar trade has been unsettled and thrown out of its legitimate course. One French refiner said we are on the way to make sugar enough to sweeten the sea itself. M. Beaulieu also records his protest against the rage for public works, which is in danger of leading to no small waste of resources. He thinks that if some foresight and sagacity are shown, there are signs that another year will bring a much better state of trade.

(June 1.)—M. Desjardins, of the French Institute, writes on "Jury and Advocates," *apropos* of a work by Don Manuel Silvela on "The Criminal Jury in Spain." In 1872 Spain introduced trial by jury, but four years' experience led to its abolition. Several statesmen wished to re-introduce it, and the subject has been brought before

the Cortes. Don Silvela, who was formerly ambassador in France, opposed this proposal in the Spanish Senate, and afterwards reproduced his addresses in French. He shows that in 1874 more than five thousand witnesses were summoned for failure to appear in court. A great number managed to escape the distasteful task. Don Silvela pays a warm tribute to the English system. He says that with us the judgment by our peers is rooted in the soil, on account of the well-disciplined character of our people. France does not receive so high commendation, and M. Desjardins discusses the conditions of its juries. He shows that in France the jury is an assemblage with both good and bad qualities. It is very firm in questions relating to rights of property. In dealing with violent attacks on property caused by political insurrection, pillage attempted or carried out, or exhortations to such conduct, the French jury can show not only firmness but a certain degree of courage. There is, however, much inequality in the repressive measures adopted. Sometimes the jury of one district will take quite a different line from that adopted by another. Even in the same court light offences are sometimes judged with severity, great offences with leniency. Certain kinds of criminals are treated with almost paternal tenderness. Women accused of infanticide, or of resorting to violence in order to avenge their honour, are sure of special sympathy. The eloquence of an advocate often has no small influence on the issue of a trial. These are the chief defects pointed out in the French system; but it is rooted in the soil, and there is reason to hope that the progress of public morals will lead to improvement in these particulars. The larger part of the article is taken up with interesting particulars as to the style of speaking in criminal courts, and the most famous advocates of recent years.

La Nouvelle Revue (April 1).—M. Trolard, Councillor-General of Algeria, shows, under the title "A Colony in Danger," that Algeria is in peril through the scanty and failing supply of water. The principal wealth of the country is in its agriculture, so that unless a speedy remedy be found there is a dark future for the colony. From one little town of the department of Oran a piteous account is sent. The sheep and goats have died of thirst on the banks of the dried-up rivers. Poor people who had no money to buy water have fallen on their knees to beg for a drop to cool their parched lips. The mayor sent all the horses and vehicles in the place to seek drinking water in the district. Their return was the signal for a regular battle. The railway company brought in supplies, which were carefully distributed to the people. One inhabitant paid twenty-five centimes for about a gallon of water, but that was only granted him as a special favour due to high influence. One family of young orphans had tasted no water for two days. M. Trolard shows that the hills of the district are low, so that the only means of attracting rain is by the trees, and unfortunately these are rapidly disappearing. The piteous state of things calls for prompt and strong action.

(April 15.)—M. Masseras writes a short account of the findings of a Commission of Reform which was appointed fifteen years ago by the Assembly of Versailles. A new commission has now been formed on the motion of M. Maurice Faure, so that the results reached by the first body will probably be somewhat nearer practical effect than before. The first commissioners were able to suggest economies amounting to sixteen million francs.

(May 1.)—In "Society at St. Petersburg," the latest addition to the sketches of life in great European capitals, there is a fine field. The series is to close with Rome, whither the writer will turn next autumn to refresh the impressions of seven years ago. The Emperor of Russia is described as a man who possesses all the virtues that adorn private life, but none of those qualities which make a man the darling of the populace. Frank, honest, loyal, he yet fears to be swayed by any interested influence, and loses himself in the endeavour to master every little detail of government. He has not the power to take a bird's-eye view of the situation, and though his intelligence and information are remarkable, he does not comprehend the necessities of his time and country. He will not make the slightest concession to the spirit of the times, nor the least compromise with aristocratic principles. He devotes himself to matters of detail with extraordinary diligence, but his ministers manage to control greater matters. His sweet but severe aspect makes a striking impression when he appears in a *salon*, but he robes himself in a cloak of reserve, and seems wearied with the world. He is a man of sound judgment and sincere patriotism,

admirable in every relation of domestic and private life. Toilette and the dance are said to be the two passions of the empress. She has an indescribable charm which fascinates all who approach her. Though not exactly pretty, the sweet, benevolent expression of her eyes, and her irresistible smile win all hearts. The imperial family, the court, and the men who surround the emperor are described in other letters. M. Pobdonostzew, the *procureur* of the Holy Synod, is the emperor's chief adviser and the man of greatest influence. He has in him the stuff of a grand inquisitor, whereas he needs the qualities of a great reformer. He would cut off Russia from the rest of the world, and throw it back into the position it held before the time of Peter the Great. Intelligent, energetic, and resolute, he is a fanatic who hates liberty and individual independence. The emperor greatly esteems and respects him.

(May 15.)—The Letters on "Society in St. Petersburg" refer largely to Count Tolstoï and M. de Giers. The Count made himself utterly obnoxious to young Russia as Minister of Public Instruction. His repressive measures inflamed the Nihilist temper, and led to no small suffering. As Minister of the Interior he has inspired more confidence, though he does not seem awake to the true condition of society in Russia. He has been a constant supporter of M. de Griers when that statesman has been accused of leaning towards Germany, and adopting too pacific a policy. Giers is extremely reserved, and has a certain timidity in bearing which has made him somewhat unpopular. His strength is as a man of action. "He is an admirable tactician. One might call him the Turenne of diplomacy." He is able to anticipate the future, and is not led astray by fine phrases. The emperor takes an active part in shaping the foreign policy of the country, and works well with M. de Giers.

(June 1.)—The closing letters of the series on "Society in St. Petersburg" deal with the condition of parties and the habits of the *grand monde*. Conservatism, in the person of Count Tolstoï, is now in power. It possesses the entire sympathy of the emperor, and has a vast number of adherents among the functionaries of government. If Count Tolstoï would bestir himself to make the tribunals and the people respect the laws they already have, rather than work out new schemes, his critic thinks that he would best serve his country. The writer maintains that Nihilism is less dangerous than German Socialism, and Fenianism in England. If it has had more terrible results, if its exploits have been more frightful, that is because it has directed its efforts solely against the person of the emperor. The *grand monde* of St. Petersburg has not, he says, the licentiousness of Berlin, the exclusiveness of Vienna, the activity of London, or the passion for fêtes which distinguishes the upper circles in Madrid. Society is divided into an infinite number of coteries. Ladies have no small influence in politics, and all the world interests itself in every development of politics.

THE DEUTSCHE RUNDSCHAU (April).—An article entitled "The Quaker Grellet in St. Petersburg" gathers together many interesting particulars of the Emperor Alexander I. His visit to England in 1814, after the fall of Napoleon, was a national festival. Wilberforce, then president of the Bible Society, was honoured with his special friendship. The result was afterwards seen in the wonderful success of the Bible Society's work in Russia. The emperor's patronage and the support of the highest dignitaries of the Greek Church won the work a wide field of usefulness. His interviews with Grellet and his friend Allen in 1819 show that the emperor was a profoundly religious man, who knew the Scriptures well, and understood the work of Christ and of the Holy Spirit. The two hours' interview with the devoted Quakers, which ended in earnest prayer, and the description which Alexander gave of his religious convictions in early youth, are of singular interest. These facts are somewhat familiar in England; we are glad that the *Deutsche Rundschau* has thus introduced them to the notice of the best circles of Germany.

(May.)—Herr Schmidt contributes an interesting paper on "Ranke the Historian." He carefully avoids dwelling on the better known particulars of the patriarchal historian's life, but shows the general characteristics of his work with considerable care. The portraits in his earlier works are described as oil-paintings. In his *History* of the World—the task at which the old man at ninety was labouring—he appears for the first time as a splendid fresco-painter. To depict the great men of history

is not his special field, but in his historic frescoes they fall into place as symbols for great ideas. Ranke has the happiness of securing fame in his own lifetime. Other writers have often to die to be famous; he reaps his honours now. [Since this notice was written, the patriarch historian has passed from among us, honoured and regretted by all.]

Unsere Zeit (April).—Professor Schwarz contributes an interesting sketch of the Bohemian glass industry, which is mainly carried on in the north-east of the country, near to the mountain forests of Silesia. That district is the headquarters of the German population and of the industrial activities of the country. The contrast between the Czecks and this active, freedom-loving population on the borders is very striking to any one who comes from the interior to this great hive of industry bordering on Silesia, Saxony, and Bavaria. The streets and houses are well built, the inhabitants neatly dressed. Signs of prosperity are everywhere. Professor Schwarz describes the manner in which the glass is produced. The mountain supplies the finest quartz and snow-white marble. The forests supply wood, and the potash made from its ashes is one of the main articles necessary for the production of the beautiful and world-renowned glass.

North American Review (April).—Senator Ingalls makes a vigorous protest against a measure which recently passed the United States Senate to distribute seventy-nine million dollars among the States according to the illiteracy of the entire population—not that of those of school age, nor of the coloured illiterates for whose instruction it is actually intended. To include these illiterates above school age as a basis for the acquisition of the money by the Southern States approaches, he says, the frontier of grand larceny. It is without justification either in morals or reason. Mr. Ingalls shows that the States are well able to bear their own burden, and that the practical result of the scheme would be to give less than twenty out of sixty millions which the South would receive to the coloured children, for whom it is all nominally appropriated; white children would receive forty millions. He says that no part of the country has made more substantial progress than the South since the war. What it requires "is the vigorous preaching of the Gospel of work. Reared in the idea that labour is degrading, in every emergency they prefer to beg rather than to dig." He thinks the struggle against ignorance would be best waged if training schools for teachers were established under Government direction. The standard of education could thus be raised without interference with the liberty of State action. Symmetry, unity, and cohesion could be attained. Skilled supervision would increase the efficiency of the entire corps of instructors. Economy of administration would be secured, and the States would be relieved of the largest item of expense which now attends the common school system. Such a force of teachers, wisely trained for their work, supported while pursuing their studies by the Government, and enlisting in its service after graduation, could be assigned to duty upon the frontier of illiteracy, the advance guard of a peaceful army, whose conquests would enlarge the boundaries of human knowledge, and whose victories would increase the opportunities of human happiness.

(May.)—T. V. Powderly writes a brief article on "Strikes and Arbitration," in which he maintains that the power of wealth is passing away. The evening shadows are, he holds, closing in upon the day when immense private fortunes can be acquired. The new power dawning upon the world is the right of the working man to rule his own destinies. He demands a graduated income tax, and a reduction of the hours of labour, so that the toilers may have time to learn the science of self-government. He claims the co-operation of the vast middle classes: "The employer and employed must no longer stand apart. The barriers of pride, caste, greed, hatred, and bitterness must be torn down." Master and man must meet to discuss all questions, and arbitration must be the rule. Then the chief officer of the "Knights of Labour" thinks that strikes will become a last and rare resort.

The Presbyterian Review (April).—A short paper on "The Mormon Question," by Dr. Eells, one of the associate editors of this review from its foundation, has special interest as one of the latest productions of his pen. He was Professor of Practical Theology in Lane Theological Seminary at Cincinnati, and rendered great service to the Presbyterian Church in America. Dr. Eells says that every man,

woman, and child is taught that disobedience or apostacy is the most heinous of all sins. Special officers are chosen to bring all real estate within the control of the Church, the "'Danites' are appointed specifically for the execution of vengeance or for the violent attainment of schemes involving property and life." There could not be, he says, a more unscrupulous, rigorous and perfect organization for its special work. The grossest deceptions are used to win or retain converts. Dr. Eells heard in Salt Lake City reports from a number of missionaries who had been sent forth to gather recruits. They said that the common people in Massachusetts were accepting the Mormon creed in great numbers, notwithstanding that the ministers were spending large part of their time in preaching against it, and told their hearers that within a short time the people would crowd to Utah. Similar reports were given as to the Southern States and Europe.

THE (AMERICAN) METHODIST REVIEW (March).—The Rev. J. W. Bashford's article on the Rev. J. E. Latimer, who was Dean of the Theological School at Boston University, is a worthy tribute to a man described at his funeral as "the ripest, broadest, and most ready scholar the first century of Episcopal Methodism has produced." This is high praise. Unfortunately, Dean Latimer has left no literary work to preserve and extend his reputation. He suffered much from dyspepsia, brought on by incessant study at college, so that he had not strength for any large addition to his labours as a professor. His father was a teacher of ability, who entered the ministry of the Methodist Episcopal Church. His son graduated at "Wesleyan" University, then gave himself to teaching. For eight years he was in the active ministry, but the principal part of his life was spent in university work. His attainments both as a theologian and a philosopher, in the opinion of competent judges, placed him in the first rank of the ministers of the Episcopal Church.

(May.)—The Rev. J. D. Walsh's article on the "Educational Work of the Methodist Episcopal Church in the South" is a well-considered plea for Christian education in the Southern States. The common school labours under special disadvantages. Seven-tenths of the population are in rural districts, and economy and efficiency are diminished by the provision of separate schools for white and coloured children. There is a sentiment opposed to local taxation to supplement the State funds, and a preference for private schools for children whose parents are able to pay for instruction. In States where the law gives "local option," as in Kentucky, some cities and towns have provided excellent free schools. But in the majority of smaller towns and in nearly all the rural districts the State fund is the only provision, and five months the longest time of free school. In North Carolina, where the limit of the State fund is about a dollar per head, the average length of term is twelve and a half weeks in a year. The average salary for white teachers is twenty-four dollars, and for coloured nineteen per month. 200,000 of the 1,046,000 coloured Methodists are under the care of the Methodist Episcopal Church. Mr. Walsh thinks that church does four times more for her people than the other Southern Methodist bodies do for all their 800,000 members. The Methodist Episcopal Church South inaugurated a scheme for the education of teachers and preachers for the coloured people in 1882, but it has only about 300 dollars' worth of school furniture and seventy pupils. With proper buildings and adequate funds it might have 500 pupils in a few months. White teachers from the North have been shut out of society simply because of their efforts for the coloured people. Mr. Walsh's article confirms and upholds Mr. Cable's plea for the negro.

QUARTERLY REVIEW OF THE METHODIST EPISCOPAL CHURCH SOUTH (April).—Dr. Hinton, the editor, discusses the "Restrictive Articles of Methodism" in a lucid and interesting paper. The general Conference of 1808, which first gave a written constitution to American Methodism, imposed these six restrictive articles on itself; so long as it did not infringe them it was to have full power to make rules and regulations for the Church:—As to doctrine nothing was to be sanctioned that was contrary to the existing and established standards; chosen delegates were to represent the various conferences in the General Conference; Episcopacy and the itinerant general superintendency were to be maintained; the general rules of Methodism were to be maintained; ministers and members were to have

rights of trial and appeal; and lastly, the profits of the publishing house were to be appropriated to the supernumeraries or widows and children of preachers. Of late the publishing house, which for years was on the verge of bankruptcy, has become a flourishing concern. Long loans without interest lifted it into a state of solvency, and now it is becoming more and more prosperous. "A Novelist out of his Element," by the Hon. J. E. Shumate, is a somewhat contemptuous criticism of Mr. Cable's writings on the position of the negro. It shows that the race-barrier will not soon be broken down in the Southern States.

CENTURY MAGAZINE (April, May, June).—In the April number, the paper "Creole Slave Songs," by G. W. Cable, with words and music, is a valuable contribution to a study which lies near to the writer's heart. The papers on the Alabama are among the most popular of the civil war series. No lover of Longfellow should miss the pleasant glimpses of him in social life. Austin Dobson's "Literary Ramble" along the Thames from Fulham to Chiswick is a sketchy but interesting paper. Dr. Buckley, the editor of the New York *Christian Advocate*, contributes a singularly judicious study of "Faith-healing and Kindred Phenomena." Thirty-seven years' study of this subject entitles him to speak with authority. He first passes the facts in review, then turns to the subject of testimony, to the explanation of the facts, and the inductions to be drawn from them. He shows how the miracles of Christ and the Apostles differed from all modern attempts at faith-healing, and guards the Christian doctrine of answer to prayer. Dr. Buckley shows how the belief in faith-healing opens the door to every superstition, tends to produce an effeminate type of character which shrinks from any pain, and to concentrate attention upon self and its sensations, destroys the ascendency of reason in the soul, and subjects Christianity to a test which it cannot endure. We quote the last words of this article, the best protest against faith-healing which we have seen: "Little hope exists of freeing those already entangled, but it is highly important to prevent others from falling into so plausible and luxurious a snare, and to show that Christianity is not to be held responsible for these aberrations of the imagination, which belong exclusively to no party, creed, clime, or age.

HARPER'S MAGAZINE (April, May, June).—Mr. Blackmore's "Springhaven," which began in the April number, is full of quaint touches and happy descriptive passages. Nelson forms a singularly interesting figure on the canvas. "The London Season," illustrated by George Du Maurier, occupies the first place in May—a pleasant paper that conveys a good idea of the bustle of fashionable life. Rear-Admiral Simpson writes in the June number on "The United States Navy in Transition." The ships and guns are shown by twenty-three good illustrations so that this careful paper forms a companion article to that by Sir Edward Reed on the English Navy, which we noticed recently. American authorities make the complaint with which we are familiar in England, and demand that the Navy should be put into a condition to satisfy the requirements of modern science.

HARPER'S YOUNG PEOPLE (April, May, June).—Stories of adventure and chapters devoted to the arts are pleasantly interspersed among the tales and pictures with which these numbers abound. "Violins and their Makers," in April, is a capital paper. The June magazine has some racy articles which will delight young readers.

The Cornhill Magazine (April, May, June).

"Court Royal," which closes in the June number, might fairly be called "an impossible story," but its descriptive power and novelty of incident make it racy reading. "Jess," a South African story, by the author of "King Solomon's Mines," is full of force and freshness. The description of the struggle with a vicious ostrich is very fine. The papers on Balzac, Cas'alty Corner, and Traitors' Hill deserve special notice. The last is a plea for the preservation of Ken Wood at Highgate, from the pen of Walter Besant.

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