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THE

LONDON QUARTERLY REVIEW.

APRIL, 1883.

ART. I.—*Life of James Clerk Maxwell.* By PROFESSOR LEWIS CAMPBELL, M.A., LL.D., and PROFESSOR WILLIAM GARNETT, M.A. London: Macmillan and Co. 1882.

THE life of James Clerk Maxwell, who, as his biographers state, "has enriched the inheritance left by Newton, consolidated the work of Faraday, and impelled the mind of Cambridge to a fresh course of real investigation;" and who, amid all the subtlety of speculation, the profundity of research, and the brilliance of discovery for which his career is so distinguished, retained the simplicity and fervour of the Christian faith, well deserves to be chronicled, and to hold a permanent place in human memory. Professors Campbell and Garnett have performed their task with great ability and fairness, and have conferred an invaluable boon upon what is after all the major portion of scientific students, those who are observers rather than theorisers, and who do not desire to drift away from the old moorings of religious conviction and sentiment. We have here presented to us the history of a man of eminent natural endowments, of keen penetration fitting him for the closest scrutiny, of calm clear judgment without which genius is but a Phaeton holding the reins of the sun, who attained to scholarship in classics and English literature, who shone in mathematics and astronomy, and who spoke with unsurpassed authority in every branch of physical science. Such a man cannot be regarded as narrow and fossilized in his

ideas when he ventures to tell out the deeper feelings of his mind, awakened by a contemplation of the soul's relationship to God. Those who have won celebrity by the brilliance of their theories, or the novelty of their speculations in one or two departments of science, but who with an almost scornful cynicism have turned aside from those realms of thought and study which border upon religion, or which are of a distinctly theological character, while they have not refrained from pronouncing dogmatically upon the vast problems concerned therein, ought not to be astonished if thoughtful men decline to give that deference to their opinions which they freely accord to others, who, like Clerk Maxwell, have attained to high rank among scholars and discoverers, and who have not shrunk from bringing their extraordinary powers of mind to bear upon the great subjects involved in the beliefs and doctrines of Christianity.

It is almost taken for granted in some quarters that there is a necessary and irreconcilable conflict between science and religion. The bolder spirits amongst the devotees of science, and the more timid of the adherents to Christianity, to whom perhaps science is almost a sealed book, have come to regard one another with feelings approaching to implacable hostility, as if the one class tended to the license of atheism, and the other dreaded anything like freedom of thought. These, however, are the extreme sections of the two encampments between which there is a vast phalanx of sober and devout men who love both science and religion, and see much in each to help the other. Scientific methods of the pursuit of truth give precision and accuracy to the visions of faith, while a wider sweep and loftier range are imparted to the inquiries of the mind by the aspirations of faith. Science might have grown ridiculous because of brilliant but false theories and unwarrantable generalisations had it not been for the moderating influence of Christian thought, and theology owes some of the most effective demonstrations of her reasonableness and truth to the principles and researches of scientific men. Earnest and painstaking study of the laws and phenomena of nature have not only a practical influence upon the material and social welfare of humanity, ameliorating sanitary conditions by the light of physiological researches, improving manufacturing industry by a better understanding of physical laws, or making agriculture more productive as the

result of the chemist's skill and the observations of the botanist; but it also cultivates a true metaphysic by the discovery of cause and effect, and fosters those intellectual qualifications which are as indispensable to correct religious as to scientific thought. And there ought to be no concern as to the fate of Christianity in consequence of the study of nature, when we call to mind that the most distinguished philosophers and scientists of every age have clung to it with fervent tenacity, and have attributed to its inspirations the noblest impulses of their minds. Copernicus, Tycho Brahé, Kepler, Galileo, Newton and Descartes, all accepted a divine revelation. Pascal defended the faith, and Kant bent all his energies against sceptical modes of thought. Hamilton, Hugh Miller, Owen, Faraday, Agassiz, and Clerk Maxwell, princes among men, found a place in their beliefs for a direct communication of the Creator's will to mankind, and Francis Bacon, whom students of nature reverence as the high priest of their order, has said, "Slight tastes of philosophy may perchance move to atheism, but fuller draughts lead back to religion."

We shall have to refer again to what we regard as the most charming characteristic of this lamented man, too soon stricken down by death, the trustfulness and fervour with which he clung to the faith in which he had been nurtured; but we must now endeavour to outline the development of his mind, and sketch the growth of those intellectual tastes which led on to the splendid attainments of after years, and the permanent contributions to science which he has made.

James Clerk Maxwell was born at Edinburgh, in 1831. Being an only child, with the exception of a daughter who died in infancy, he was the object of great solicitude, and as his mother died when he was but nine years old, it was fortunate that his father was eminently qualified for the training of a young mind, and the moulding of a moral character. This important and congenial task he performed with the "judiciosity," to borrow a word from his Bradwardinean vocabulary, which characterised all he did. As a younger son he had received a portion of the old Middlebie estate, which by the conditions of entail could not go with the Penicuick estate of the Clerks, and to this he added by purchase the Glenlair farm. It was to Glenlair that he retired after his marriage, and here James lived till he was ten years of age. During this period the kindly

and ingenious father exercised a deep and lasting influence on the susceptible nature of his son. Mr. Maxwell planned all the buildings and improvements on his estate, and superintended all domestic matters, even to the cutting of the last for his own square-toed shoes. And as James was his one companion and care, it is not an exaggeration to say that those mechanical and mathematical proclivities which he manifested at a quite juvenile age, and which found their consummation in the planning of the Cavendish Laboratory during his Cambridge professorship, were the direct products of his father's example and training. As his biographers say, "The Galloway boy was in many ways the father of the Cambridge man; and even the 'ploys' of his childhood contained the germ of his life work" (p. 429).

The necessities of education led to James being sent to Edinburgh Academy at the age of ten, his father taking up his abode again at Edinburgh, except during the summer season, when he repaired to Glenlair. He was thus enabled to take the oversight of his son's studies, and also, which was more important, of his recreation. Some slight oddities in dress and manners did not tend to make the boy's introduction to school-life smooth and agreeable. Tunics of hodden gray tweed, and shoes clasped and fashioned after the somewhat bucolic ideas of his father, were not likely to escape the keen observation of frolicsome schoolboys, to whom round jackets and shoe-strings were *de rigueur*. But his fine natural gift of irony, combined with his geniality of disposition, saved him on many an occasion from provoking merriment, and established him eventually as a general favourite. The very first time he was questioned as to the maker of his shoes, he replied in broad Scotch *patois:*

> "Din ye ken, 'twas a man,
> And he lived in a house
> In whilk was a mouse."

At school, though at first he seems to have found more pleasure in watching "humble bees" than in the monotony of Latin grammar, yet he soon applied himself with vigour to his books, and placed himself in the first rank among his compeers. His ingenuity is evidenced by his framing a system of mnemonics based on the positions of the windows in the school, and by his humorous sketches and hieroglyphic letters to his father. He also displayed as a mere

lad those versifying powers and imaginative faculties which through his whole life he occasionally exercised, and which, had he not been occupied with sterner pursuits, might have placed him among our principal poets. On leaving the Academy at the age of sixteen he was first in English, and only narrowly missed being first in classics, besides gaining the great distinction of the mathematical medal. Already he gave proof of that extraordinary capacity for physical investigations, and that skill in the application of mathematics to physical problems which afterwards raised him to the highest eminence in the scientific world. His attention was turned to magnetism and to optics, especially the phenomenon of "Newton's Rings," the chromatic effect caused by pressing lenses together. He was also incited to the study of the polarisation of light in consequence of a visit to Mr. Nicol, of Edinburgh, the inventor of the polarising prism bearing his name. In 1846, while he was but fifteen, young Maxwell prepared a paper for the Royal Society of Edinburgh, on the description of oval curves and those having a plurality of foci, in which he presented the suggestion that the common theory of the foci of conic sections could be extended to curves of a higher degree of complication. Professor Forbes, in a letter to Maxwell's father, said of this paper, "I think it very ingenious, and certainly remarkable for his years, and I believe substantially new." James found out later on, what Professor Forbes seems not to have observed, that his ovals were the same as those of Descartes, and that his method of describing the curves by means of cords and pins was identical with that of the French philosopher; but his paper was clearly original. Professor P. G. Tait, with whom Maxwell commenced a friendship at this time, which lasted throughout his life, says of his schoolfellow's mathematical ability, when he first met him: "I still possess some of the MSS. we exchanged in 1846 and early in 1847. Those on the 'Conical Pendulum,' 'Descartes' Ovals,' 'Meloid and Apioid,' and 'Trifocal Curves,' are all drawn up in strict geometrical form and divided into consecutive propositions. At the time when these papers were written he had received no instruction in mathematics beyond a few books in Euclid and the merest elements of algebra."

In 1847 Maxwell entered Edinburgh University, where he remained for three years. He of course followed the usual curriculum, but the subjects on which his attention

was most concentrated during this period were polarisation, galvanism, rolling curves, and the compression of solids. There was no scientific problem, however, but was interesting to him. Biology was then rapidly acquiring that fascination and prominence which it now possesses, and Owen's hypothesis of types of creation, with its terminology and the problems it involved, was completely mastered by Maxwell. He was also led under Sir W. Hamilton through the abstract but to him intensely interesting fields of metaphysics, and from that able and learned philosopher he received impressions which remained with him through life. His mathematical bent made him responsive to the doctrine of natural realism, while his mystical tendency was appealed to by Hamilton's distinction between knowledge and belief in relation to perception. Hamilton's philosophy has received rude criticism from the more positive schools of later years, but no metaphysician has ever inspired in his disciples a more ardent love for abstract thought than that which has been manifested by many who listened to Hamilton's speculations on perception, his demonstration of the reality of an external world, and his masterly treatment of the unconditioned or infinite. Maxwell evidently took a great interest in those subjects dealt with by Hamilton which constitute the borderland of physics and metaphysics, for a paper which was found by Professor Baynes treasured in Hamilton's private drawer, and which had been written by Maxwell as an exercise, displays a profound acquaintance with the properties of matter, and the speculations of such men as Descartes and Leibnitz. It is true he spoke in 1870 at the Liverpool meeting of the British Association of "the barren metaphysics of past ages;" but he would have admitted without hesitation that his psychological studies had helped him to an accurate understanding of the problems concerned in vision on the one hand, as well as in molecular physics on the other, when he came to study experimental optics and the laws of matter and motion. He must also by this time have made some mark in the departments of electricity and chemistry, for Sir W. Thomson requested him to make some magne-crystalline preparations for Tyndall and Knoblauch, who were studying the origin of magne-crystalline forces.

Meanwhile he was prosecuting inquiries into colour vision and colour blindness. At the meeting of the British Asso-

ciation, in 1850, when a paper by Sir David Brewster had been read on "Haidinger's Brushes," two conspicuous yellow appearances, with the complementary violet colour filling up the space between them, which are seen by some persons when they look at a point in the sky at a distance of 90° from the sun, general surprise was created by the rising of Maxwell, a beardless youth, to dispute some point that had been urged. Although he was embarrassed by bashfulness, yet he succeeded in gaining the hearing and the confidence of his audience. Even in his adolescence, a period when most youths are led by authority, he had begun to think for himself. Some of his criticisms on men and books at this period reveal a maturity of intellectual vigour and independence rarely met with in young men not yet of age. Of Professor Wilson, the moral philosophy lecturer, he wrote:

"Wilson, after having fully explained his own opinions, has proceeded to those of other great men: Plato, Aristotle, Stoics, Epicureans. He shows that Plato's proof of the immortality of the soul from its immateriality if it be a proof, proves its pre-existence, the immortality of beasts and vegetables, and why not transmigration? He quarrels with Aristotle's doctrine of the golden mean—a virtue is the mean between two vices—not properly understanding the saying. He chooses to consider it as a pocket rule to find virtue, which it is not meant to be, but an apophthegm or maxim or dark saying, signifying that as a hill falls away on both sides of the top, so a virtue at its maximum declines by excess or defect (not of virtue), but of some variable quantity at the disposal of the will . . . So that Wilson garbles Aristotle, but I bamboozle myself" (p. 128).

Maxwell's father had supposed his son would follow in his own footsteps by embracing the legal profession, but it was clear by this time that, as James himself expressed it, he "was called to study another kind of law." This point was at length finally settled by Maxwell's entrance at Cambridge, first at Peterhouse, and afterwards, for the sake of the greater advantages presented by the larger establishment, at Trinity College.

When he went up to Cambridge there was a general expectation that he would distinguish himself in the mathematical and scientific studies which form so prominent a portion of the curriculum of that University. The "average undergraduate," accustomed to parsing and late

rising, would no doubt feel considerable astonishment at beholding Maxwell's scraps of gelatine and unannealed glass, his bits of magnetised steel, and other similar objects which the odd young freshman took with him, and which were evidently of greater interest to him than some of the studies which have become venerable in our universities. His originality was somewhat pronounced too, in the curious modes of exercise and recreation which he occasionally adopted. One of his contemporaries says: "From 2 to 2.30 a.m. he took exercise by running along the upper corridor, down the stairs, along the lower corridor, then up the stairs, and so on, until the inhabitants of the rooms along his track got up and lay *perdus* behind their doors to have shots at him with boots and hairbrushes as he passed."

His geniality and social temperament, combined with wit which sparkled but rarely wounded, soon attached to him many sincere and valuable friends, among whom were C. Hope Robertson, Mackenzie, afterwards Bishop of Natal, Howard Elphinstone, and F. W. Farrar. His intellectual development rapidly progressed, and everything that had to do with experimental physics was more than ever fascinating to him. In 1851 he witnessed the pendulum experiment at Trinity, which Foucault had just introduced to the scientific world to prove the rotation of the earth. He also received a strong impulse towards the practical and utilitarian as the result of a careful inspection of the Great Exhibition held in this same year at the Crystal Palace. At Cambridge there was a "Select Essay Club," composed of the very cream of the University, the members of which, being limited in number to twelve, were familiarly known as "the Apostles." Into this circle of the *élite* Maxwell was soon welcomed, and his contributions to this society which still remain show that he was busily investigating the first principles of all things. As an illustration of his speculative tendencies as well as of the activity of his intellect, and the fine irony which characterised his humour, the following extracts are taken from a paper on "The Nature of the Evidence of Design," which he read before this association, when he was most closely occupied with preparation for the approaching mathematical tripos, and which deals with subjects that were gradually becoming the main study of his life:

"Design! the very word disturbs our quiet discussions about

how things happen with restless questionings about the *why* of them all. We seem to have recklessly abandoned the railroad of phenomenology, and the black rocks of ontology stiffen their serried brows and frown inevitable destruction . . . The belief in design is a necessary consequence of the laws of thought acting on the phenomena of perception. The essentials then for true evidence of design are: (1) A phenomenon having significance to us. (2) Two ascertained chains of physical causes contingently connected and both having the same apparent terminations, viz., the phenomenon itself and some presupposed personality. If the discovery of a watch wakens my torpid intelligence, I perceive a significant end which the watch subserves. It goes, and considering its locality, it is going well. My young and growing reason points out two sets of phenomena: (*a*) the elasticity of springs, &c.; (*b*) the astronomical facts which render the mean solar day the unit of civil time combined with those social habits which require the cognisance of the time of day. . . It is the business of science to investigate these causal chains. If they are found not to be independent, but to meet in some ascertained point, we must transfer the evidence of design from the ultimate fact to the existence of the chain. Thus, suppose we ascertain that watches are now made by machinery . . . the machinery including the watch forms one more complicated and therefore more evident instance of design."

He then goes on to speculate upon the Neo-Platonic notion of *Δημιουργοί*, and almost intimates a belief that, if a plurality of intelligent creators were discovered, it would not weaken our conviction that there is an ultimate First Cause.

Mathematics, of course, in view of the tripos, now constituted his main study, and in this department he displayed wonderful power. At one of Hopkins's lectures, when the tutor had filled the black board three times with the investigation of some hard problem in geometry of three dimensions and was not at the end of it, Maxwell came up and said he thought it would come out geometrically, and thereupon he showed how, with a diagram and a few lines, the solution could be obtained at once.

At the end of his three years' course at Cambridge he obtained the second place in the mathematical tripos, Mr. Routh, the well-known tutor, being first wrangler, and in the still more difficult examination for Smith's Prize he was bracketed first with Routh. Soon afterwards he was elected Fellow of Trinity, and was at once appointed to

lecture on hydrostatics and optics. By this time it may be said that his path in life was determined, and the habitual bent of his mind, as well as his replete and varied scholarship, were speedily to find favourable opportunities and appropriate spheres for their display. His experiments with the colour top and the colour box for the purpose of studying the combinations of colours and the laws of colour vision were continued with zest, and by these he was able to show that the common notion that blue and yellow make green is correct only in the case of pigments and not where light is concerned. He also constructed an instrument called the opthalmoscope, with which he could examine the retina of living animals, and he continued to seek for the principles of matter in motion. Magnetism and electricity were pursued with avidity, and at every favourable opportunity he would fascinate, while he often mystified, his friends, with excited and voluble descriptions of the swift invisible motions by which galvanic and magnetic phenomena were to be explained. These studies led up to his mathematical treatment of Faraday's lines of force, one of the most profound as well as most useful of his achievements. The next sphere in which Maxwell was called upon to labour was at Aberdeen, where he was appointed to the Chair of Natural Philosophy in Marischal College. Shortly before he entered upon his duties he experienced one of the greatest sorrows of his life in the death of his father. These two had been associated for years in the bonds of an affection which was inspired on the one hand by the wisdom, integrity, and paternal solicitude displayed by the father, and on the other hand by the filial reverence, the gentleness and purity of heart, which had ever characterised the son. Their letters to each other, interchanged every two or three days, and at some periods oftener, kept up the community of thoughts and pursuits during their absence from one another that had always marked their companionship. The grief caused by this bereavement was borne by Maxwell with a quiet spirit and uncomplaining resignation, which were the noble fruits of that faith whose germs had been fostered in his soul by him who was gone. A poem elicited by this sad event, from which the following lines are taken, reveals the depth of tender feeling which lay underneath the placid demeanour of the bereaved son:

"Yes, I know the forms that meet me are but phantoms of the brain,
For they walk in mortal bodies, and they have not ceased from pain,
Oh those signs of human weakness, left behind for ever now,
Dearer far to me than glories round a fancied seraph's brow.
Oh the old familiar voices; oh the patient waiting eyes;
Let me live with them in dreamland while the world in slumber lies,
For by bonds of sacred honour will they guard my soul in sleep
From the spells of aimless fancies that around my senses creep.
They will link the past and present into one continuous life;
While I feel their hope, their patience, nerve me for the daily strife.
For it is not all a fancy that our lives and theirs are one,
And we know that all we see is but an endless work begun.
Part is left in nature's keeping, part has entered into rest;
Part remains to grow and ripen hidden in some living breast."

With chastened mind and a deepened sense of responsibility, Maxwell now entered upon the double work of carrying on the management of the Glenlair estate, which had been the object of so much care and interest to his departed father, and the still more engrossing duties of his Aberdeen professorship.

He now for the first time turned his attention to Saturn's rings, studying them as instances of the circular motion of fluids. The idea with which he set out was that the very forces which would tend of themselves to divide the ring into great drops or satellites are made by the motion to keep the fluid in a uniform ring. For more than a year he followed up this laborious task with a view to the writing of an essay on "The Structure of Saturn's Rings," the subject set by the examiners for the Adams Prize, given by St. John's College, in honour of the discoverer of Neptune. To draw up an hypothesis which should embrace all the conditions of the case, and stand every test to which it could possibly be put, was an undertaking of no ordinary difficulty, but it was one that completely fascinated him for a time, nor was it beyond his vast intellectual capacity and mathematical ingenuity. He constructed a very clever model by which the motions of a ring of satellites could be practically demonstrated. This model is preserved in the Cavendish Laboratory, at Cambridge, and consists essentially of two wheels turning on parallel parts of a cranked

axle, and thirty-six small cranks equal in length between corresponding points of the circumferences of the wheels, each carrying a little ivory satellite. It is not astonishing that work done in this thorough manner should be rewarded by the highest success. The Adams Prize was awarded to him, and after a minute revision the essay was published.

At Aberdeen he became acquainted with the family of Principal Dewar, to whose daughter, Katherine Mary, he was married, in June, 1858. It is impossible that there could be a deeper tenderness or a truer devotion than he manifested towards his wife as long as he lived. For more than twenty years he brought to her in the smallest domestic concerns, as well as in matters of greater moment, the most perfect sympathy and the most prudent counsel. Even when lying on his death-bed he regularly inquired into everything that concerned her comfort, and, so far as he could, supervised those household arrangements which from her invalid state of health she was prevented from attending to. And she, on her part, fully reciprocated his devotion, for she interested herself in all his labours, rendered him such assistance as she could in his experiments, and on several occasions when he was dangerously ill, once with a highly infectious disease, she nursed him with unwearying assiduity. His views of the married state had something almost mystical about them, and it seemed to him as if in spirit they were one, whether absent from each other or together. There is an exquisite touch of sentiment in the following lines, which he sent to his wife during an absence from home, revealing something of the depths of his manly heart:

> "Oft in the night from this lone room
> I long to fly o'er land and sea,
> To pierce the dark dividing gloom,
> And join myself to thee.
>
> "And thou to me would'st gladly fly,
> I know thee well, my own true wife!
> We feel, that when we live not nigh,
> We lose the crown of life."

Then, referring to their approaching meeting, he continues:

> "Then shall the secret of the will,
> That dares not enter into bliss;
> That longs for love, yet lingers still,
> Be solved in one long kiss.

"I, drinking deep of thy rich love,
Thou, feeling all the strength of mine,
Our souls will rise in faith above
The cares which make us pine.

"Till I give thee, thou giving me,
As that which either loves the best,
To Him that loved us both, that He
May take us to His rest.

"Wandering and weak are all our prayers
And fleeting half the gifts we crave;
Love only, cleansed from sins and cares,
Shall live beyond the grave.

"All powers of mind, all force of will,
May lie in dust when we are dead,
But love is ours, and shall be still,
When earth and seas are fled."

After only three sessions at Marischal, the Professorship of Natural Philosophy lapsed, owing to the fusion of the Aberdeen Colleges. Maxwell therefore, in 1860, accepted a similar position in King's College, London. Here his duties were more burdensome than at Abereeen. His courses of lectures extended over nine months out of the twelve, and there were additional lectures in the evening to artisans. At the meeting of the British Association this year, at Oxford, he exhibited his box for mixing the colours of the spectrum. He also read a paper on Bernouilli's theory of gases, in which he showed that what is called the viscosity of gases, as well as their low conductivity for heat, and Graham's laws of diffusion, could all be accounted for by the supposition that gas consists of a number of independent particles in rapid and constant motion among themselves, and he calculated that in ordinary atmospheric air each particle undergoes more than 8,000,000,000 collisions every second, and that the flying molecules repelled one another as the inverse fifth power of their distance.

The following year he delivered his first lecture at the Royal Institution, on the theory of the three primary colours. He also acted upon a committee with Balfour Stewart and Fleeming Jenkin to make experimental measurements in order to determine the electric ohm, the standard of electrical resistance, and the system of units then established was adopted by the Electric Congress, which met at Paris in 1881. Further investigations were

also made by him while in London, on the subject of electric units for the purpose of making comparisons between electricity and the velocity of light.

Mainly in consequence of ill-health he resigned the professorship at King's College, in 1865, and for some half-dozen years lived in comparative retirement at Glenlair, hoping to bring to completion his great work on Magnetism and Electricity, upon which he had already bestowed some labour; but which, amid the many calls upon his time in connection with his lectures in London, had not advanced so rapidly as he desired. It was during the period of his residence at Glenlair that he brought the book into something like a definite shape, although it was not published till 1873. His treatise on Heat, published in 1870, was also undertaken during this season of leisure, and moreover he filled the office of examiner several times for the Cambridge Tripos, in which capacity he was mainly instrumental in introducing those changes which have since been admitted into the examination system of that University. It is probable that these few years at Glenlair were the happiest of his life. The day was occupied with correspondence, which was always voluminous, and with various scientific experiments, while in the evening he would often read aloud to his wife from Chaucer, Spenser, or Shakespeare. On Sundays he was regular in his attendance at the kirk, and on returning home he habitually devoted himself to the works of the old standard divines.

In 1870 he attended the meetings of the British Association, being elected to the presidency of the Mathematical and Physical Section, to which he delivered an address on the relation of mathematics and physics to each other. The few opening sentences of this address are worth quoting, not only because they indicate in a masterly way the nature and conditions of the problem, but also because they refer to some previous presidential addresses which dealt with important topics. He said:

"I have endeavoured to follow Mr. Spottiswoode as with far-reaching vision he distinguishes the systems of science into which phenomena, our knowledge of which is still in the nebulous stage, are growing. I have been carried by the penetrating insight and forcible expression of Dr. Tyndall into that sanctuary of minuteness and of power, where molecules obey the laws of their existence, clash together in fierce collision, or grapple in yet more fierce embrace, building up in secret the forms of visible things.

I have been guided by Professor Sylvester towards those serene heights :

> 'Where never creeps a cloud or moves a wind,
> Nor ever falls the least white star of snow,
> Nor ever lowest roll of thunder moans,
> Nor sound of human sorrow mounts, to mar
> Their sacred everlasting calm.'

But who will lead me into that still more hidden and dimmer region where thought weds fact, where the mental operation of the mathematician and the physical action of the molecules are seen in their true relation? Does not the way to it pass through the very den of the metaphysician, strewed with the remains of former explorers and abhorred by every man of science?"

The most useful and influential period of Maxwell's career was that during which he filled the Chair of Experimental Physics at Cambridge, from 1871 till the time of his death. Here he performed the main business of his life, inspiring the enthusiastic youths by whom he was surrounded with his own passionate love for scientific research, and achieving those magnificent results in the departments of electricity and molecular physics by which he rose to the very highest fame among the leaders of science. As this chair had but just been founded by the munificence of the Duke of Devonshire, the Chancellor of the University, the principal work of the new professor for some time was necessarily that of designing and superintending the building of a laboratory. This he did with the utmost care and diligence, visiting the laboratories of Sir W. Thomson at Edinburgh, and Professor Clifton at Oxford, in order that he might have the benefit of the most recent improvements. By the spring of 1874 all was ready for the commencement of work. With such spirit and energy did he throw himself into his duties that, as Sir W. Thomson declared, there was "nothing short of a revival of physical science at Cambridge" resulting from Maxwell's influence. His great delight now was to render all needful assistance to those who were studying science, and some who have since attained to great distinction owe their success largely to the enthusiasm which the experiments of Maxwell inspired.

He was now brought into pleasant association with many of the leading spirits of Cambridge, some of whom had formed a club called the Erănos (*ἀνδρῶν πρεσβυτέρων ἑταιρία*), differing from the "Apostles" in the graver character of the discussions. Besides Maxwell, this select

circle contained Dr. Lightfoot, and Professors Westcott and Hort.

One of the most remarkable productions of his later life, and one to which reference has often been made, owing to the intense scientific interest of the topics dealt with, is the famous "Discourse on Molecules," delivered before the British Association in 1873. Towards the end of the address he gave utterance to some weighty sentiments on the relation of physics to theology.

"In the heavens we discover by their light, and by their light alone, stars so distant from each other that no material thing can ever have passed from one to another; and yet this light, which is to us the sole evidence of the existence of these distant worlds, tells us also that each of them is built up of molecules of the same kind as those which we find on earth. A molecule of hydrogen, for example, whether in Sirius or in Arcturus, executes its vibrations in precisely the same time. . . No theory of evolution can be formed to account for the similarity of molecules, for evolution necessarily implies continuous change, and the molecule is incapable of growth or decay, of generation or destruction. None of the processes of nature, since the time when nature began, have produced the slightest difference in the properties of any molecule. We are therefore unable to ascribe either the existence of the molecules or the identity of their properties to any of the causes which we call natural. On the other hand, the exact equality of each molecule to all others of the same kind gives it, as Sir John Herschell has well said, the essential character of a manufactured article, and precludes the idea of its being eternal and self-existent. Though in the course of ages catastrophes have occurred, and may yet occur in the heavens, though ancient systems may be dissolved and new systems evolved out of their ruins, the molecules out of which these systems are built—the foundation stones of the material universe—remain unbroken and unworn. They continue this day as they were created, perfect in number and measure and weight; and from the ineffaceable characters impressed on them we may learn that those aspirations after accuracy in measurement and justice in action, which we reckon among our noblest attributes as men, are ours because they are essential constituents of the image of Him who, in the beginning, created not only the heaven and the earth, but the materials of which heaven and earth consist" (pp. 359, 360).

No apology need be made for this lengthy extract when it is reflected how important is its bearing upon the nebular hypothesis of Laplace, which, it is to be feared, is being too readily accepted by the world without giving due

weight to the difficulties which beset it as regards the origin of matter and of force; as well as upon that extreme phase of evolutionism which some men of science prefer to the alternative belief in special and distinct creative acts by an intelligent First Cause. The greatest physicist of the present age has declared that the marks of skill and handicraft impressed upon the molecule are a fatal difficulty in the way of that theory which was dimly adumbrated by Kant and Laplace, and brought into definite expression by the labours of Darwin, Tyndall, and Huxley.

It is clear from the quotation just given that Maxwell was diametrically opposed to the views which were propounded by Professor Tyndall in his famous address which he delivered at Belfast, when President of the British Association in 1874. This was the last meeting of the association that Maxwell attended. He read a paper on "The Application of Kirchhoff's Rules for Electric Circuits to the Solution of a Geometrical Problem," but he is associated with that meeting chiefly on account of his humorous paraphrase of Tyndall's startling address, which, together with a Greek translation of it by Mr. Shilleto, was published in *Blackwood's Magazine.* The whole of this witty production would be worth quoting, but only a few representative lines can be given:

"In the very beginnings of science, the parsons who managed things then
Being handy with hammer and chisel, made gods in the likeness of men,
Till commerce arose, and at length some men of exceptional power,
Supplanted both demons and gods by the atoms, which last to this hour.

* * * * * *

"So treading a path all untrod, the poet philosopher sings
Of the seeds of the mighty world in the first beginnings of things;
How freely he scatters his atoms before the beginning of years;
For he clothes them with force as a garment, those small incompressible spheres.

* * * * * *

"Thus in atoms a simple collision excites a sensational thrill,
Evolved through all sorts of emotion, as sense, understanding and will.

* * * * * *

Thus a pure elementary atom the unit of mass and of thought
By force of mere juxtaposition to life and sensation is brought;

So down through untold generations, transmission of structureless germs
Enables our race to inherit the thoughts of beasts, fishes and worms.
We honour our fathers and mothers, grandfathers and grandmothers too,
But how shall we honour the vista of ancestors now in our view?
First then let us honour the atom, so lively, so wise and so small,
The Atomists next let us praise, Epicurus, Lucretius and all;
Last, praise we the noble body to which for the time we belong,
Ere yet the swift whirl of the atoms has hurried us ruthless along,
'The British Association."

While at Cambridge Maxwell wrote several articles for the ninth edition of the *Encyclopædia Britannica*, the most valuable and interesting of which is the one on "Atom," in which he gives a full exposition of his doctrines and researches in connection with that subject. He also wrote a small treatise on "Matter and Motion" for the Society for Promoting Christian Knowlege series, wherein will be found an admirably concise expression of his ordinary teaching and habitual thoughts on molecular physics, dynamics and kinematics. But the chief literary work of his later life was *An Account of the Electrical Researches of the Hon. Henry Cavendish*, which was published in 1879. It may have been that he was impelled to this great task by a sense of the obligations under which the University of Cambridge was placed to the founder of the Cavendish Laboratory, but, valuable as the book is, those precious years might have been still more fruitful had he given them to continued study along his own lines.

The last few years of Maxwell's life were clouded by his wife's serious and protracted illness, and there can be no doubt that his unremitting attention to her, combined with his other enormous labours, undermined his strength and led to the premature breaking up of his constitution. He began to be much troubled with dyspepsia in 1877, and although he rarely referred to his health and retained his old youthful buoyancy of spirits, yet by the early part of 1879 it had become painfully evident to his friends that a great change had taken place in him, and in October he was told by his physician that he had not a month to live. He then left Glenlair for Cambridge, accompanied by his wife, in order to obtain more conveniently the best medical assistance. But he was now beyond the reach of human

skill. During his last few weeks his sufferings were intense, but he bore them with the greatest fortitude and serenity. He was anxious for nothing save the welfare of his invalid wife whom he was to leave behind. His thoughts dwelt upon subjects of a moral and spiritual rather than of a scientific character. One day he repeated those lines in the *Merchant of Venice* in which occurs the noble passage:

> "Look how the floor of heaven
> Is thick inlaid with patines of bright gold;
> There's not the smallest orb which thou behold'st
> But in his motion like an angel sings,
> Still quiring to the young-eyed cherubims:
> Such harmony is in immortal souls;
> But whilst this muddy vesture of decay
> Doth grossly close it in, we cannot hear it."

He then said he had been wondering why Shakespeare had put such sublime language into the mouth of so frivolous a person as Lorenzo.

On another occasion he suddenly started up from a long reverie and repeated the verse "Every good gift and every perfect gift is from above," and asked, "Do you know that that is a hexameter? πᾶσα δόσις ἀγαθὴ καὶ πᾶν δώρημα τελειον. I wonder who composed it!" He was very fond of quoting from Richard Baxter's hymn:

> "Lord it belongs not to my care,
> Whether I die or live;
> To love and serve Thee is my share,
> And this Thy grace must give."

Four days before his death he received the sacrament, and while the clergyman was putting on the surplice, Maxwell repeated aloud George Herbert's touching lines on the priest's vestments entitled "Aaron," one of the stanzas of which runs thus:

> "Christ is my only head,
> My only heart and breast,
> My only music, striking me, e'en dead;
> That to the old man I may rest,
> And be in Him new drest."

The last time this clergyman saw Maxwell, he found him too weak and restless for conversation, but just as he was about to go, the dying man said to him, "My dear

friend, you have been a true under-shepherd to me; read to me, before you leave, the beautiful prayer out of the Burial Service, 'Suffer me not at my last hour for any pains of death to fall from Thee.'"

A minute or two before he breathed his last, while being held up in bed, he said slowly and distinctly, "God help me! God help my wife!" Then to the friend who was holding him up he said, "Lay me down lower, for I am very low myself and it suits me to lie low;" after which, he fixed his eyes upon his wife, and with one long tender look at her, he breathed his last. Thus died this truly great man, meekly trusting in the mercy of God, on November 5th, 1879.

A profound sorrow was universally felt at Cambridge when his death became known, for all who had come into contact with him had been impressed with his worth. He was not only eminent in science, but he was firm and tender in friendship, moving no envy by his success, and showing none at the honours paid to others. One of the physicians who was at his bedside when he expired, and who had known him intimately for years, said of him, "He was one of the best men I have ever met, and a greater merit than his scientific attainments is his being, so far as human judgment can discern, a most perfect example of a Christian gentleman."

Although we have endeavoured in the foregoing biographical sketch to indicate the nature of Professor Maxwell's scientific work, and to show how prominent was the position he occupied among the great intellects of the time, yet in order to form anything like a true estimate of those contributions to science with which his name is most closly associated, it will be necessary to deal somewhat more fully with several matters to which a passing reference has already been made.

His earliest original investigations, which, however, were continued all through his life, were those which bear upon colour vision. While the *extent* of light vibrations determines the intensity of the light produced, it is their *rapidity* which explains the sensation of colour. An analogy may be instituted between light and sound, for loudness or intensity is caused by the extent of the sound waves, while pitch depends upon the number of vibrations required to produce a given note. It is estimated that the deep red of the spectrum corresponds to 400,000,000,000,000

vibrations per second, while the opposite end of the spectrum, the extreme violet, is produced by more than 700,000,000,000,000; the wave-lengths, which decrease as the number of vibrations increases, being respectively $\frac{1}{39000}$ and $\frac{1}{[illegible]}$ of an inch. White light, however, may be composed not only by the commingling of all the colours of Newton's spectrum, but also by various other combinations of colours, hence the *chromatic* effects of mixing different colours are not always identical with the *optical*. Dr. Thomas Young at the beginning of this century had turned his attention to this problem. He supposed that green, red, and violet were the three primary colours, and that all other hues were compounds of these. Maxwell followed along the lines laid down by Young. He constructed a top upon which could be placed circular discs of coloured papers. By putting two or more discs on the spindle of the top, different combinations of colours could be effected, which, owing to the persistence of impressions on the retina, became blended together when the top was spinning. He also constructed an ingenious and elaborate apparatus called the "Colour Box," for similar experiments. By these means he was able to discover that an ordinary eye possesses three independent colour sensations, but that colour-blind persons have only two. The missing sensation he found to be nearer the red than to any other colour of the solar spectrum. This discovery led to the construction of a pair of spectacles having one glass red and the other green, by which a colour-blind person could distinguish between red and green, a red object appearing brighter when seen through the red glass, while a green colour would be brighter when looked at through the green glass. It was for these researches that the Rumford Medal was awarded to Maxwell in 1860. M. Frithiof Holmgren, of Upsala, has since shown by following Maxwell's methods that there are also cases of violet-blindness.

Many other optical contrivances were devised by Maxwell, among them being the Zoetrope, or "Wheel of Life," and the more important real-image Spectroscope. His most valuable contribution to optics was to show the relation between certain electrical units and the velocity of light. It is impossible here to enter fully into this intricate subject which Maxwell fully explained in a paper published in the *Philosophical Transactions* for 1868. He first of all showed that the ratio of the electro-magnetic to the electro-

static unit of electricity is proportional to the ratio of the square root of the elasticity of the medium to the square root of its density. Then, regarding the air as a dielectric (or insulator) he obtained, as the value of this ratio, a velocity of 179,000 miles per second. Weber and others, by similar processes, have since given other slightly increased results, the mean of which agrees with tolerable exactness with Foucault's determination of the velocity of light. It follows, then, that the medium for light is the same as that for electro-magnetic phenomena, and that the propagation of light is of similar nature to an electro-magnetic disturbance.

Maxwell's studies and experiments in relation to Saturn's rings, were an important contribution to astronomical physics. Huyghens in 1659 first announced the discovery that Saturn was girdled with a thin flat ring inclined to the ecliptic. Hadley and Sir W. Herschel threw further light on the question of the plane of Saturn's revolution, and also settled the fact of a division in the ring. It has since been established that the planet is enveloped by two bright rings, the outer of which is divided into two concentric rings by a very narrow gap, and that when seen at certain angles of vision, each ring is perceived to be broken up into a number of thin rings. Within the two bright rings there has also been observed a darker ring which is of such extreme tenuity as to be transparent, so that the edge of the planet can be seen through it. The stability of Saturn's rings was for a long time a problem of intense interest and of great difficulty. If they were solids, and at rest, the attraction of Saturn would, as Maxwell remarked, cause iron to become semi-fluid, and yet if the outer rings rotated with the velocity which the planet's revolution on its axis seemed to require, it was thought they would fly off into space, while if the velocity of the outer rings were accommodated to that of the inner, the latter would be crushed down upon the planet's surface. Laplace supposed a very large number of concentric rings each revolving independently with its own velocity around the planet. In Maxwell's essay, which gained the Adams prize, he showed that Laplace's theory was correct in principle, but that the rings were far more numerous than he had supposed. He dismissed the theory of solid rings and showed that the assumption of a liquid ring did not meet all the necessities of the case, concluding that "the only system of rings

which can exist is one composed of an indefinite number of unconnected particles revolving round the planet with different velocities according to their respective distances. These particles may be arranged in a series of narrow rings, or they may move through each other irregularly. In the first case the destruction of the system will be very slow, in the second case it will be more rapid, but there may be a tendency towards an arrangement in narrow rings which may retard the progress." The late Astronomer Royal declared that this paper was "one of the most remarkable applications of mathematics to physics" he had ever seen.

The electrical researches and experiments of Professor Maxwell have brought him a fame which has been eclipsed by none of the men of science who have made this century illustrious. After his graduation he took up Faraday's works, in which he discerned at once the connection between the Theory of Attractions as developed mathematically and the method pursued by Faraday. The science of electricity may be said to have been founded in the reign of Elizabeth, when Dr. Gilbert ascertained that many substances possessed the property which amber had been long known to have, of attracting light bodies when heated by friction. Then Coulomb devised the torsion balance, by which he determined the law that the attraction or repulsion between two small bodies charged with electricity varies with the charges and the distance. The mathematical theory of electricity was started by Cavendish a century ago, and it is to him that we are mainly indebted for the experimental evidence of electric laws. He demonstrated that attraction or repulsion between two charged bodies varies directly as the product of the charges, and inversely as the square of the distance between them. It is curious that Faraday was unacquainted with the views of Cavendish, and it is perhaps as well that the exposition of those views was left to one who possessed all Faraday's capacity for observation and experiment, as well as a mathematical skill which Faraday never claimed. Faraday thought that there must be some mode by which electric actions are conducted from point to point, and it was his great merit that he showed them to be transmitted in lines, straight or curved, and to exert pressure and tension wherever they occur. The supposition that Faraday's conception of electrical phenomena differed from that of the mathema-

ticians, was shown by Maxwell to be unwarranted, for he perceived that Faraday's method was also capable of mathematical expression. "Faraday saw lines of force traversing all space where the mathematicians saw centres of force attracting at a distance. Faraday saw a medium where they saw nothing but distance. Faraday sought the seat of the phenomena in real actions going on in the medium; they were satisfied that they had found it in a power of action at a distance impressed on the electric fluids." Such is Maxwell's explicit solution of the supposed difficulty.

Faraday in reality represents a magnetic field geometrically as a space traversed by lines which lie in the direction of the magnetic force at every point, and which are distributed in such a way that their frequency is everywhere proportional to the intensity of the field. Maxwell, in a paper read before the Cambridge Philosophical Society, showed that if at any part of the course of these lines, their number passing through a unit area of surface at right angles to the direction of the force is proportional to the magnitude of the force, the same proportion between the number of lines per unit of area crossed and the intensity will hold good in every part of the course of the lines. Faraday, moreover, pointed out that, besides the tension along each line of force, the lines exert a repulsion on one another, and Maxwell showed how equilibrium results from this tension and repulsion. When Faraday saw this paper he showed his appreciation of its value by addressing the following letter to Maxwell:

"I received your paper and thank you very much for it. I do not say I venture to thank you for what you have said about 'lines of force,' because I know you have done it for the interests of philosophical truth; but you must suppose that it is work grateful to me, and gives me much encouragement to think on. I was at first almost frightened when I saw such mathematical force made to bear upon the subject, and then I wondered to see that the subject stood it so well."

Only one other branch of study in which Maxwell was of service to science can be glanced at, and that is molecular physics. In this, as indeed in all sciences, an atomic theory of some kind plays an important part. Democritus in very early times had framed such a theory, and on it the system of Epicurus was based. Lucretius, in ancient

times, and Gassendi in the Cartesian age, embraced the doctrines of Epicurus. Descartes entered into controversy with Gassendi, and framed a material system, remarkable for its compactness and logical consistency, but it was vitiated by the fundamental error of regarding matter as being nothing more than extension. He says (*Princip.*, ii. 4), "The nature of matter or of body, considered generally, does not consist in a thing being hard, or heavy, or coloured, but only in its being extended in length, breadth, and depth." This is simply confounding the properties of matter with those of space, an error which runs through all Descartes' philosophy, and lies at the foundation of Spinoza's system.

Maxwell gives a concise account of the various older atomic theories in his article "Atom," which he wrote for the *Encyclopædia Britannica.* Professor Clausius and Dr. Boltzmann, but especially Clerk Maxwell, have brought the molecular theory of gases to its present complete state, and have established it on a sound dynamical basis. According to the molecular theory all material substances are made up of molecules which are in motion relatively to each other. In solids the movement is nothing more than a vibration, in liquids there is less interference of the molecules with one another, but their freedom is much impeded, while in gases each molecule is quite free, except when one collides with another. Upon these principles is based the kinetic theory of gases. The momentum of a particle varies as the product of its mass and velocity (mv) and its kinetic energy as the product of mass and the square of velocity, being equal, as Maxwell explains in *Matter and Motion*, to half mv^2 the vis viva of Leibnitz. The pressure of a gas is determined by its kinetic energy, and since this is the same for each gas at the same temperature, it follows that equal volumes of two gases at the same pressure and temperature contain the same number of molecules, and hence the density of a gas is proportional to the mass of a molecule. As the molecule is the combining weight, we have a demonstration of Gay Lussac's law of equivalent volumes.

The basis of the modern atomic theory is the union of bodies in fixed and multiple proportions, for though "atom," like the "first beginnings" of Lucretius, is a creature of the imagination, begotten for the purpose of satisfying man's intellectual need of something ultimate,

yet its dimensions are determined by necessary conditions. If water be decomposed by an electric current, the proportion in volumes is unaltered, and similarly with nitrous oxide (N_2O) as well as with all other chemical combinations.

Molecules are groups of atoms held together by what chemists call affinity. A molecule of water consists of two atoms of hydrogen and one of oxygen (H_2O). Steam is precisely the same, except that the molecules are further apart. They are not broken up into atoms, for atoms are only ideal. It is probable that intense vibration may wreck some molecules; indeed, Professor Tyndall remarks that a photographer dare not use blue rays, lest they should wreck his salts of silver. There is an intimate relation between the atomic theory and light and sound, for the vibrations of the ether select those atoms whose periods of vibration synchronise with their own, and deliver up their motion to those atoms. This theory also explains why elementary gases are impervious to heat, and compound gases absorb it.

The only information we can possibly acquire about molecules is what Maxwell calls "statistical," implying that the motion of the centre of gravity of the group can be determined, but not that of any one of its members for the time being; because these members are continually passing from one group to another in a manner beyond our power to observe.

There are some allied questions to this of atoms and molecules of vast importance, which are referred to in the article "Atom." Referring to the dimensions of atoms, Maxwell declares that the physiologist

"is forbidden from imagining that structural details of infinitely small dimensions can furnish an explanation of the infinite variety which exists in the properties and functions of the most minute organisms. A microscopic germ is, we know, capable of development into a highly organised animal. Another germ equally microscopic, becomes when developed an animal of a totally different kind. Do all the differences, infinite in number, which distinguish one animal from another arise each from some difference in the structure of the respective germs? Even if we admit this as possible, we shall be called upon by the advocates of Pangenesis to admit still greater marvels. For the microscopic germ, according to this theory is no mere individual but a representative body, containing members collected from

every rank of the long-drawn ramification of the ancestral tree, the number of these members being amply sufficient not only to furnish the hereditary characteristics of every organ of the body, and every habit of the animal from birth to death, but also to afford a stock of latent gemmules to be passed on in an inactive state from germ to germ, till at last the ancestral peculiarity which it represents is revived in some remote descendant.

"Some of the opponents of this theory of heredity have attempted to elude the difficulty of placing a whole world of wonders within a body so small and so devoid of visible structure as a germ, by using the phrase structureless germs. Now, one material system can differ from another only in the configuration and motion which it has at a given instant. To explain differences of function and development of a germ without assuming differences of structure is therefore to admit that the properties of a germ are not those of a purely material system" (p. 573).

The latter part of this article deals with a matter concerning which there had been much interest manifested, and which, in October, 1874, had been discussed in the pages of *Nature*, the designation of the molecule as "a manufactured article." The expression was first used by Sir J. F. Herschel in his *Preliminary Discourse on the Study of Natural Philosophy*. To Bishop Ellicott Maxwell wrote:

"What I thought of was not so much that uniformity of result which is due to uniformity in the process of formation, as a uniformity intended and accomplished by the same wisdom and power of which uniformity, accuracy, symmetry, consistency, and continuity of plan are as important attributes as the contrivance of the special utility of each individual thing" (p. 393).

As was objected in *Nature* by Mr. C. J. Monro, in some cases the uniformity among manufactured articles is evidence of want of power in the manufacturer to adapt each article to its special use, but there is also a uniformity of plan, the choice of which is the highest proof and manifestation of intelligence, and that is the uniformity by which the Divine Artificer proceeds, because it is the absolutely best. Such, in substance, is the answer which Maxwell gave to the criticisms upon his use of Herschel's comparison.

These doctrines, the profound convictions of one of the best physicists of the age, arrived at not by brilliant generalisations to meet the momentary exigencies of public appearances with the aim of exciting popular sensation, but reached by the most thorough inquiry according to

strictly scientific methods, are a distinct and sufficient rebuke of that materialistic tendency which is exhibited by some of his *confrères* in physical research. Professor Huxley has said, "Thought is the expression of molecular changes in that matter of life which is the source of our other vital phenomena." Du Bois Reymond tells us that not only our bodily but also our mental functions are performed by the motion of atoms, and the finite mind has a double aspect, on the one hand acting, yet unconscious, and on the other, conscious, but inactive; the former, as Maxwell remarks in his dry way, being nothing but the mechanics of atoms, and the latter lying outside of mechanics, and caring nothing for cause and effect.

By grave strong reasoning, as well as with the keen weapon of his subtle irony, he was ever ready to do battle with all that was brought into contradiction with his intense belief that nature bore upon it the marks of perfect wisdom, and that the universe was everywhere stamped with the vestiges of an intelligent Creator. Although he was no controversialist, and as he said, had no nose for heresy, yet he was continually bringing his powers of burlesque and satire to bear upon contemporary fallacies. Some of his writings of this kind appeared in *Nature*, and others were handed to some friend for perusal. Among his more weighty utterances on this subject was a remark he made during his last illness, "I have looked into most philosophical systems, and I have seen that none will work without a God." This is a testimony worth pondering. Some of the Divine Laws, it is true, are incomprehensible and transcendental, but, as Maxwell said, "It is an universal condition of the enjoyable, that mind must believe in the existence of a law, and yet have a mystery to move in." The belief in a personal Deity was to him a mental necessity, but it was by no means a stagnant faith. "Nothing," wrote he in a letter, "is to be *holy ground* consecrated to stationary faith, whether positive or negative." Research "is never to be willingly suspended till nothing more remains to be done; *i.e.*, till A.D. $+ \infty$." Mystery there will ever be, therefore let there be unending research.

If the scientific world has reason to be grateful for Maxwell's noble labours, the Christian Church may also be thankful for such a life. Not in the spirit of a polemic, but with tender considerateness for the feelings and beliefs of others, he yet managed to convince many who would

have otherwise looked coldly on his faith, that to him it was an intense reality and a sublime inspiration to purity and philanthropy. Through all his career he never forgot the entreaty which fell from his dying mother's lips, that he would "always look up through nature to nature's God."

As might be expected from one whose mother was a pious Episcopalian and whose father was a Presbyterian elder, Maxwell was ordinarily very reticent with regard to the deeper and more sacred instincts of his nature, but in his letters, especially to his wife, all the depths of his soul were revealed, and the strong, clinging love which he cherished for Christ was spoken of with such unobtrusive naturalness as leaves no doubt concerning the reality and intensity of his spiritual life. On one occasion he wrote:

"I have been back at 1 Cor. xiii. I think the description of charity or divine love is another loadstone for our life—to show us that this is one thing which is not in parts, but perfect in its own nature, and so it shall never be done away. It is nothing negative, but a well-defined, living, almost acting, picture of goodness, that kind of it which is human, but also divine. Read along with it 1 John iv. ver. 7 to end; or if you like, the whole Epistle, and Mark xii. 28."

Again he writes to Mrs. Maxwell:

"I am always with you in spirit, but there is One who is nearer to you and to me than we ever can be to each other, and it is only through Him and in Him that we can ever really get to know each other. Let us try to realize the great mystery in Ephes. v. and then we shall be in our right position with respect to the world outside, the men and women whom Christ came to save from their sins."

His religion was moreover of a practical kind. He gave largely and worked with much zeal and energy for the endowment of Corsock Church near his estate, and the building of the manse. He also set apart a site and got plans made out for a day-school in the neighbourhood, to be built and supported at his own expense, a purpose which was interfered with by his illness and premature death.

We have not many men to lose like Professor Maxwell, and it is pardonable if those who long to see the thinking, throbbing world of science spiritualised by a living faith in God, and sobered by a reverence for revealed truth, should feel that his departure has left a gap which cannot easily be filled. But he lived nobly, and future generations will be the richer for his life.

ART. II.—1. *Rivers Conservancy Bills, House of Lords and House of Commons.* 1879-1883.

2. *Report of the House of Lords' Committee on Conservancy Boards.* 1877.
3. *Rivers Conservation: Address and Papers read before the British Association at Dublin.* 1878.
4. *Address of James Abernethy, Esq., F.R.S.E., President of the Institution of Civil Engineers.* 1881.
5. *Conservancy of Rivers: Papers read by Messrs. Wheeler and Jacob before the Institute of Civil Engineers, Session* 1881-1882.
6. *National Water Supply: Notes on previous Inquiries in connection with the Congress of the Society of Arts.* 1878.
7. *Annual Conference on National Water Supply, Sewage, and Health, of the Society of Arts.* 1879-80.
8. *Reports of the Salmon Fishery Commissioners.* 1879 *and* 1881.
9. *Report of the House of Lords on Thames Floods Prevention.* 1877.
10. *Report of the Thames Traffic Committee.* 1879.
11. *Reports of the Thames Conservators.* 1857 *et seq.*
12. *Report of the Metropolitan Board of Works.* 1878-79.

LORD HALE, writing of the "office of conservancy," in his work, *De Jure Maris*,* says that it is of two kinds. The first, that relating to nuisances in rivers, was established by an Act of Henry IV.'s reign,† which instituted commissioners of sewers to provide for the protection of lands from the inroads of the sea and navigable rivers, and empowered them to charge the cost of the necessary works on the owners of property in the area benefited. The other is the conservancy relating to fishery, which is founded on the statute of Westminster the second.‡

Water conservancy has, however, of late years, acquired

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* *De Jure Maris.* Harg. Tracts, p. 23.

† 1 Henry IV. c. 12, confirmed by 23 Henry VIII. c. 5, and many subsequent statutes.

‡ Statute Westminster II. c. 47, mentioned in the statute 1 Eliz. c. 17.

a wider meaning. It has been defined by the eminent engineers and authorities who have most studied the subject, to consist in the treatment and regulation of all the water that falls on these islands, from its first arrival in the form of rain or dew to its final disappearance in the ocean, and has been taken to be the regulation of rivers for the following purposes: 1. Navigation; 2. Water supply for domestic, sanitary, and industrial purposes; 3. Water power; 4. Drainage and irrigation of land; and 5. The preservation of fish. The carriage of refuse has by some been included as a sixth use. As, however, it may be shown to interfere materially with three of the above-mentioned uses, and therefore to be antagonistic to a true system of water culture, it is proposed to consider it apart.

The water system of the United Kingdom offers peculiar advantages for the development of conservancy. The rivers of England and Wales are 210 in number, and drain an area of 54,971 square miles. In tidal rivers Great Britain possesses especial advantages as compared with Continental nations. Not only have tidal rivers an immensely greater flow than those that are tideless, but they also enhance the value of maritime advantages. Thus, the Humber, which drains but one-thirtieth part of the area drained by the Danube, a tideless river flowing into a tideless sea, has an ordinary volume at the mouth more than twice as great as the occasional flood volume, and eleven times greater than the mean flow of the latter river; while the tidal coast line of Great Britain and Ireland, which is 3,900 miles, is greater than that of any other nation of Europe. Again, the average rainfall throughout England and Wales appears to be generally stated at thirty-two inches per annum, giving a total fall in the year of more than 27,000,000 gallons. In the mountainous districts of the North-West of England and Wales, however, the rainfall is greatly in excess of the average, and it has been stated that twenty-two inches per annum may be relied upon as an average in the driest districts. The sites, also, which are available for surface reservoirs, are plentifully scattered in the tributary valleys forming our various river basins. This may be seen from the map published by the Society of Arts as the result of their survey for ascertaining the means available for a national water supply, which also gives the dimensions of the subterranean water systems so extensively distributed throughout the United Kingdom. Lastly, we have 4,500

miles of canal system, which, owing to the progress of railways, have of late years been comparatively neglected.

In spite, however, of these natural advantages, the idea of treating them systematically is regarded as the utopian and costly dream of scientific theorists. Though the phenomena relating to many of our rivers have been thoroughly investigated by some of the most competent engineers, and a most valuable collection of hydrological facts has been made by those who have studied the question of a national water supply, little or no attempt has been made to reduce these materials to a system. While Holland, Italy, France, and Germany possess departments devoted to the management of all matters relating to water, and while in America engineers have not shrunk from dealing with the Mississippi, which drains an area 180 times greater than that of the Thames, England possesses only a mass of conflicting authorities to deal with the element which Isaac Walton termed the "the eldest daughter of the creation." It is proposed in the present article, by examining past and impending legislation, as well as the state of things with which it has to deal, to show how far river conservancy in England falls short of what it ought to be, and how it might be raised to a degree of efficiency commensurate with its importance.

The branch of conservancy which first received attention in England was, as is usual, that of navigation. In this, however, British enterprise did not lead the way, and indeed was far behind that of Continental nations. Though a canal joining the Trent to the Witham was constructed by Henry I., in 1134, it was not till 1614 that the New River Canal was brought to London, and not till 1624 that the Thames was made navigable to Oxford; while it was not till the middle of the last century that the great movement began for constructing canals and making rivers navigable which has resulted in the 4,500 miles of canals and waterways which we now possess.

The conservancy of fisheries was first made a subject of legislation in the reign of Edward I. In 17 Richard II. c. 9, it is enacted that "justices of the peace be conservators of the statutes touching salmons," meaning thereby 13 Edward I. c. 47, and 15 Richard II. c. 19. The Fisherman's Company, for regulating the fisheries of the Thames, was incorporated in 1710, and there were doubtless local Acts governing many of the rivers of England; but it was

not till 1861 that a national character was given to the work by the appointment of two Inspectors of Fisheries for England and Wales.

In his last Annual Report for 1880 Mr. Walpole says:

"In 1863 the entire produce of the English and Welsh salmon fisheries was estimated by Mr. Eden, who was then inspector, at £18,000. In 1865, the late Mr. Ashworth, a competent writer, placed their value at £30,000. For some years past the produce has been worth £100,000, and, great as this increase is, it would have been much greater if the drainage of lands, and the increase of river pollutions, had not made improvement in many cases impossible, or had not actually reversed the progress which in other cases had been made."

In 1848 the period of sanitary improvements commenced, and our rivers, already the receptacles for mining and manufacturing refuse, began to be used everywhere as sewers. In 1861 a reaction set in, when a Royal Commission declared that river pollution had become a national evil, and the Legislature began to take steps to undo the results of what may be termed the "drainage period." Besides several local provisions, the enactments contained in the Thames Conservancy Acts and the Rivers' Pollution Prevention Act were passed; all of which, however, owing to the indifference of the public, and the faulty machinery of the statutes, have proved useless. As will be shown later on, river pollution continues unabated; and, though intimately connected with the great question of a national water supply, it is regarded by the general public as a question of mere scientific interest.

Water supply first attracted the attention of the Legislature in 1827, when a Royal Commission was appointed to inquire into the state of the water supplied to the metropolis. The Royal Commission of 1843 to inquire into the state of large towns and populous districts, the Royal Metropolitan Sanitary Commission of 1847, and the Royal Commission of 1865 on river pollution, all deal in a supplementary way with water supply; but the principal commission on the subject was that of 1866, appointed to ascertain what supply of unpolluted and wholesome water can be obtained by collecting and storing water in the high grounds of England and Wales, either by the aid of natural lakes, or by artificial reservoirs, at a sufficient elevation for the supply of large towns. The subject was also under the consideration of the Royal Sanitary Com-

mission of 1869, and the Royal Society of Arts have never ceased to press its importance on the public at the series of congresses held by them since 1878. Though, however, the question of purchasing the rights of the London Water Companies was, during the past session, said to occupy the attention of the present Home Secretary, there has been no attempt to legislate on the subject since the failure of Sir R. Cross's bill, and the latest fruits of the growing interest in matters relating to water have been the series of bills brought forward to provide for the prevention of floods.

Since 1879 five measures have been framed for the purpose of dealing with this branch of conservancy, the last of which was recently announced in the Queen's Speech. The first of these was the bill introduced in the House of Lords in 1879 by the Duke of Richmond, based on the report of the House of Lords' Committee of 1877 on Conservancy Boards, which was then appointed in consequence of the alarming prevalence of river floods. It had for its objects the mitigation of floods and the enforcement of the Rivers' Pollution Prevention Act, and it appears to have aimed at placing the basin of each river as far as possible under a single authority. This measure had to be abandoned when the Conservatives went out of office, but its principles were adopted in that introduced by Lord Spencer in the House of Lords in 1881, with the addition to the purposes of the Act of the arterial drainage, warping, or irrigation of land, and the storage of water. A bill on the same subject was also introduced in the House of Commons during the same session by Mr. Magniac, which differed from its two predecessors in leaving the area to be dealt with undecided, and providing for the establishment of district and sub-district boards as well as general conservancy boards. While too both the former divided the lands to be rated for the purposes of the bill into three classes, viz.—uplands, midlands, and lowlands, it proposed to tax only two classes of lands—first and second class, nor did it contemplate dealing with arterial drainage or water supply. Neither of the measures of 1881, however, became law, and that of last year, introduced by the President of the Local Government Board, having shared the same fate, the forthcoming bill—which we are informed is based on the same lines as the latter, and which the disastrous floods of the last few months have rendered urgently necessary—will consequently shortly be submitted to Parliament.

This is more limited in scope than any of its forerunners, and proposes to deal only with the prevention of floods; and, like Mr. Magniac's bill, leaves the area to be dealt with uncertain. It empowers any twenty or more owners, or owners and occupiers of land of a rateable value in the aggregate of not less than £2,000, as well as sanitary and conservancy authorities, to apply to the Local Government Board by petition for the establishment of a Conservancy Board for the whole or any part of the river basin in which their lands are situate. After the tedious and costly processes of a local inquiry, of a draft provisional order, and, if this prove satisfactory, of a provisional order, the latter is to go before Parliament for confirmation, and the result will be a Conservancy Board. Wherever just and practicable, the land must be divided into lowlands, midlands, and uplands, which are to contribute by a conservancy rate, levied on the same basis as the poor rate, to the expenses of the conservancy fund; the highest rate payable by the uplands to be not more than one-tenth part of that payable by the lands paying the highest general rate. The board are empowered, saving the rights of existing authorities, to take such measures as they deem advisable for the prevention of floods, contracting where necessary with sanitary authorities for that purpose, and to commute and enforce the liabilities of private persons with respect to works, exempting lands from taxation, or levying special rates on them in cases where it seems expedient. The Local Government Board, to whom Conservancy Boards are to report annually, and to submit an annual statement of their accounts, are empowered to repeal local acts, and to abolish commissions of sewers and conservancy authorities interfering with Conservancy Boards under the Act, though only, it is to be presumed, with the consent of the former. They are also empowered to invest existing authorities with the powers given by the Act; and, in the case of fen lands already under the government of drainage commissioners or conservancy authorities, to make provision for defraying expenses in such a manner as shall work harmoniously with the system of taxation established by such Acts.

In order to judge fairly of this measure, it is necessary to consider the state of things it is intended to remedy, evidence of which may be gathered from the report of the House of Lords' Committee in 1877, and the other sources

of information referred to above. It will be found that the water system of the country is entrusted to various corporate bodies—River Navigation Trustees, Canal and Railway Companies, Harbour and Dock Trustees, Commissioners of Sewers,* and Fishery Boards—created by between 2,000 and 3,000 Acts, as to which Mr. Ridley, one of the Enclosure Commissioners, stated in his evidence before the House of Lords that "no man could ever ascertain properly what their contents are," and with which no existing authority can interfere.

The systems under which these governing bodies deal with the rivers or portions of rivers under their control present every variety of management and mismanagement. There are rivers, mostly smaller ones, over which an enormous number of authorities have jurisdiction. Such are the Nene, the thirty-one miles' tidal portion of which is entrusted to eight public bodies, whose internecine conflicts during the last half-century have cost the inhabitants of the locality £100,000 in litigation and parliamentary proceedings; and the Witham, whose length of between eighty and ninety miles is ruled by seventeen sets of commissioners, while it has been said that hardly a session passes without seeing several bills relating to the drainage of the fen land through which these two rivers flow brought before Parliamentary Committees. Such too is Kennet and Avon navigation, which for the first mile and a half of its course is under the Thames Conservancy, and for the next two miles under the Reading Local Board, after which the Great Western Railway has control over it up to Bristol, where the Bristol Dock Company take charge over it till it reaches the sea.

Then there are rivers which are entrusted to an authority for a certain distance, generally at or near the outfall, and for the upper portion of their course are entirely neglected. Such are the Severn, with a length of 178 miles, and with seventeen tributaries of a united length of 450 miles, which is under a body of commissioners for forty-two miles only,†

* *The Report of the House of Lords' Committee*, 1877 (Appendix), gives the Commissions of Sewers now in force as thirty-one under 23 Henry III., c. 5; twelve under Part I. of the Land Drainage Act, 1861; and twenty-nine "separate drainage districts" under the latter Act, giving a total of seventy-two.

† The owners on the Upper Severn complain that this Commission, by regulating the river, has *diminished* the floods on which they were dependent for navigation.

from Stourport to Gloucester; the Humber, an estuary receiving the Ouse, Derwent, Trent, and most of the drainage of the northern portion of the kingdom, which is under a conservancy commission that deals with navigation only, and has nothing to do with the care of the banks; and the Trent, which is 167 miles long, with ten tributaries of a united length of 293 miles, and is under a navigation company for 73 miles, from Gainsborough, twenty-six miles from the Humber, to a point thirteen miles above Nottingham.

Some rivers, like the Dorsetshire Stour, have never been under any conservancy authorities, but are entirely given over to the millowners, their floods being considered beneficial; while others have fallen into a state of decay through the neglect of their conservators. Examples of the latter class are the Upper Warwickshire Avon, which was supposed to belong to the Great Western Railway Company, till the latter were threatened at suit of the landowners with proceedings for neglect before the Railway Commissioners, when they promptly repudiated their ownership; and the Wye and the Lugg rivers, the trustees of which practically surrendered their powers to a horse-towing company, whose establishment was broken up on the completion of the railway from Hereford to Gloucester, so that while both bodies have a full legal existence, neither performs any of the duties of conservancy.

Again, there are navigations that have been extinguished by railway competition, as in the case of the Ivel, a tributary of the Ouse, the commissioners of which, finding themselves utterly destitute of funds, were obliged to apply to Parliament for an Act to wind themselves up; there are rivers like the Parret, Carey, Brew and Axe, in Somersetshire, which after a series of severe floods have been placed under one authority by a comprehensive measure, based on the lines of the Enclosure Acts; and lastly there are rivers like the Wear, the Tyne, and the Tees, which have been brought to a high state of conservancy under their respective authorities, so that flooding is unknown.

Such being the state of conservancy generally, Government was asked to find a remedy for the evils consequent on perpetually recurring floods. It was pointed out by Mr. Bailey Denton, and others examined before the House of Lords' Committee, that land drainage hastens floods, owing to the fact that the improved outfalls discharge the

water of the subsoil drains as well as the surface water, it having been calculated that the water so drained amounts in the year to 500 tons per acre on clay soils, in which half the rainfall penetrates to the under drains in twenty-four hours, and to 1,000 tons per acre on free soils, which retain the surface water up to the point of saturation. It was shown that a flood passing over the surface of meadow lands quickly does good; but if retained for days great injury results. It was also proved that mill-dams and weirs have the effect of raising the beds of rivers, the result being that rivers seldom occupy the lowest places of valleys, these being the side streams formed by waste water channels for mills, and by washes of canals, &c., which might be used for storage purposes. "My own opinion is," says Mr. Bailey Denton, "that, with the increase of water due to land drainage, unless you look to storage to regulate the flow of rivers—that is, to supply the water in times of drought which has been saved in times of plenty—you can never accomplish any great improvement." The same authority calculated that the water drained annually from the land is equal to two and a half times the whole water supply required by the population, thus demonstrating the close relationship with land drainage to the question of water supply, which necessitates on the face of it the prevention of pollution. Additional evidence on this point can be gathered from the Reports of the Inspectors of Salmon Fisheries. Thus Mr. Buckland, in the report for the year 1879,* remarks, that the drainage of land causes the *sudden* running off of water. "There are vast tracts of sheep walks and boggy ground which a few years ago were saturated with water and acted as sponges, keeping up a constant flow of water down a river in dry seasons; these are now riddled with drain pipes, and in a few hours sent down a spate into a river, which runs away into the sea in much less time than formerly." Mr. Walpole, in the same report,† bears testimony to the same fact, and similar statements will be found in the Report of the Salmon Disease Commission for 1880.‡ The subject has also been fully discussed by the Institution of Civil Engineers of late years, and the main points at issue may be summed up in the words of Mr.

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* *Parliamentary Papers*, Vol. XIV. pp. 395, *et seq.*
† *Ibid.*, pp. 461, *et seq.*
‡ *Ibid.*, Notes of Evidence, p. 251.

Wheeler at their proceedings (session 1881-2). "In all improvements," he remarks, "the fact should be kept steadily in view that the rainfall is only to be got rid of after making due provision for water supply, irrigation, water power, and navigation. These are none of them incompatible with good drainage."

If we now examine how Parliament proposes to deal with these problems, we find that it is by the creation of a set of entirely new authorities dependent on voluntary action. Beyond the provisions that Conservancy Boards may, if they please, surrender their powers, and that an existing Conservancy Board may, on application to the Local Government Board, be invested with fresh conservancy powers, no attempt seems to be made to diminish the present bewildering number of authorities. In addition to this it would seem that the bill almost provides for a conflict by empowering the new Conservancy Boards, which deal only with the prevention of floods, to obtain the restriction of the powers of the old ones, which for the most part regulate navigation or fishery, and the former of which, since their duties are undertaken generally for profit, may be expected to view with jealousy any attempt to limit their authority. An undue importance seems thus to have been assigned to the duty of the prevention of floods over that of regulating navigation, and though it must not be forgotten that there are many non-navigable rivers, under no conservancy authority, which would derive benefit from the new boards, it would seem to have been wiser, as respects rivers already navigable, to attempt to consolidate the old navigation conservancy authorities, and to entrust them with powers for checking inundation. It appears to be admitted by authorities on the subject, that not only is navigation beneficial to the purity of water, by the fact that it requires a depth incompatible with the growth of weeds, but also that a river, when once made efficient for navigation, will probably more than maintain itself as a main channel, so that the subsidiary river channels alone would have to be maintained for drainage works. It appears to be the universal opinion of all engineers who have had to deal with rivers, that the best remedy for the prevention of floods is the deepening of the outfall, and that embanking alone has a prejudicial effect. The requirements of navigation necessitate this measure, and we find that the rivers that have been most successfully improved are those that

have been deepened to provide harbour and dock accommodation, as for instance the Tyne, the Clyde, and the Avon.

We have mentioned these facts to show that the use of navigation would seem to be, strictly speaking, paramount to that of flood prevention. In the case of rivers that are non-navigable, it has been pointed out by Mr. John Lloyd, of Huntington Court, Herefordshire, as supplementing his evidence before the House of Lords' Committee, that the Salmon Fishery Conservancy Boards have usually entire jurisdiction over the watershed of their river, and therefore would constitute the nucleus of a Conservancy Board where such does not exist. Here then arises a fresh element of possible conflict on the creation of any new board under the Act.* A more serious defect, however, in the bill than either of those already mentioned is the fact that, supposing a certain number of these Conservancy Boards to have been created, with powers of restricting other authorities on the river, they would be all isolated units carrying on their own system of conservancy, without that power of utilising facts common to all, which the control of a central department of government would enable them so beneficially to do. It is, moreover, deeply to be regretted that a most important branch of river conservancy, that of the prevention of pollution, with which each of the three bills already mentioned proposed to deal, has been altogether omitted from the present measure. After the numerous reports of Royal Commissioners and enactments on the subject, it would be superfluous to enlarge on the frightful evils of river pollution from a sanitary point of view. As to its interference with navigation, evidence will be given later on in the case of the Thames; while the extent of its existence in rivers presumably purer than any others is proved by the remarks of the Inspectors of Salmon Fisheries in their latest Report:

"In the first place it is our duty to point out that the multiplication of salmon is seriously affected by the increase of pollution. Into the particulars of these pollutions it is not necessary for us to enter. A reference to the appendix will show the many cases in which new pollutions have arisen, or old sources of pollution have done fresh damage, during the last twelve months,

* A table, showing the limits of the various salmon fishery districts of England and Wales, will be found in Appendix IX. of the *Report of the Inspectors of Fisheries for* 1881.

and the few cases in which steps have been taken to render pollution harmless. We may say generally that the multiplication of fish is made more difficult in this way, and that some of the rivers which have hitherto been most productive are in perhaps the greatest danger from this cause. It is for Her Majesty's Government, rather than ourselves, to consider whether under these circumstances any steps are desirable for the purpose of remedying these pollutions. It is merely our duty to point out the danger that arises from them."

Hitherto we have been considering the defective condition of river conservancy generally. In order to illustrate what we believe to be a remedy, we will proceed to examine in detail the case of the Thames, both because it affords the only example of an English river possessing anything like a complete system of conservancy administered by one authority, and also because it is excluded from the operation of the bill now before Parliament.

The conservancy of the Thames, which tradition states was given to the City of London by William the Conqueror, and which was certainly conferred by charter in the reign of Richard I., A.D. 1196, was transferred to the Thames Conservators by the Thames Conservancy Act of 1857, on the conclusion of a Chancery suit, which lasted twelve years, between the Crown and the Mayor and Corporation as to the ownership of the soil of the bed of the river. They were thus made, in the words of Lord Cairns, "guardians, as it were, of the navigation of the Thames, and the protectors of the bed and soil of the Thames for the purposes of navigation."* The jurisdiction of the conservators, both as to powers and extent, has been developed by a series of subsequent Acts. Thus, the original limits from Staines to Yantlett Creek were, by the Act of 1864, extended to the whole river from Cricklade to the Nore, the old governing body, the Upper Thames Commissioners, being given a representation on the Board. So, too, the jurisdiction given to them as to pollution, which was first confined to the actual river by the Acts of 1857 and 1864, was extended to three miles on each side of it by the Act of 1867, to five miles by the Act of 1870, and to ten miles by the Act of 1878. Again, while by the Act of 1866 the six water companies supplying the metropolis were brought into communication with the conservators, and power was

* Lyons v. Fishmongers' Company, 1 App. Cas. 662.

given to them to complain of works likely to injure the purity of their intake, they on their part paying a contribution to the Conservancy Fund, the Act of 1878 increased this contribution to enable the conservators better to meet additional expenses thrown on them by their increased jurisdiction with regard to pollution. Lastly, their powers under the same Act of making bye-laws to regulate the fishery, which were inherited from the City of London, were extended so as to enable them to vary the close seasons by the Salmon Fisheries Act, 1876.

The duties of the conservators may be summarised as comprising the care and control of the river in all that relates to navigation, as well as of all professional persons navigating it; the maintenance of its waters, and the waters of its tributaries within ten miles, in a pure state, and the regulation of its fisheries. They have no jurisdiction as to the prevention of floods, and apparently no control over the actual volume of the river, since they are bound to maintain a sufficient head of water for the mills on the upper river, and to permit the millowners, of whom there are some 360 on the banks of the Thames and its tributaries, to draw down water for their reasonable repair; nor do they seem to have any authority to limit the amount taken from the river by the water companies.

Imperfect, however, as the authority of the conservators must still be admitted to be, the history of the Board shows that it has been steadily developed and consolidated, and a glance at the work which it has accomplished since the river was first entrusted to it some twenty-two years ago, affords a good proof of what can be done by means of one governing body.*

In 1857 the Upper Thames, once, it is said, navigable up to Ashton Keynes, some half a dozen miles above Cricklade, was a nearly abandoned navigation. For 152 miles, between Cricklade and Staines, the locks were in such a perilously dilapidated condition that the destruction at any moment of most of them seemed inevitable. As almost all of these were attached to weirs holding up the water for driving mills, the use of any one involved not only risk to vessels and the stoppage of traffic on that part of the river where it happened to be, but the failure of the water power

* The writer is indebted for the following facts to the courtesy of the Thames Conservators.

of the miller. As a still further hindrance to navigation, charges, appropriately termed "old lock tolls," were made for locks that had ceased to exist for many years, while the weeds, formerly kept in check by the barge traffic, had, on its decay, attained such a luxuriant and rank growth as to cover the whole bed and surface of the river, and to threaten the silting up of the channels on which the country depended for drainage.

On the lower river, navigation was not only hindered by the non-removal of wrecks and obstructions, and by shoals increased by the removal of old London Bridge, and continually added to by the practice, notably followed at the Docks, of throwing mud and other refuse into the river, but also suffered from an urgent want of embankments, steam-boat landings, and other accommodation for vessels. Lastly, from about 1850, the Thames began to be used as a sewage channel by nearly all the towns on its banks.

Such were the results of the rule of the City of London and the Upper Navigation Commissioners, the evil effects of which have been now almost entirely removed by the conservators. As respects the upper river, on which £5,000 was expended in 1876, of the thirty-six locks and weirs nineteen have been almost entirely rebuilt, and *all* have been placed in good working order, to the great increase of the waterway. The ownership of the mills has been transferred to the conservators, and a fixed toll is payable at all the locks, while the weeds and obstructions which interfered both with the flow and purity of the river have been removed.

As respects the lower navigation, while the work of deepening and dredging the channels and the berths occupied by ships has proceeded continuously since 1857, between 700 and 800 wrecks* have been removed and restored to the owners, and by means of inspections and prosecutions, the casting into the river of mud and refuse is being gradually put a stop to. The granting of embankments, which under the Corporation brought in only £1,000 a year, now yields a revenue of £6,000 per annum, one-third of which is paid to the Crown, while the remainder goes to meet the general expenses of management for the

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* In their last Report for the year ending 1881, the conservators state that thirty-four sunken vessels have been raised, of which seven are steam vessels measuring 6,342 tons, nine are sailing vessels measuring 1,628 tons, and eighteen are barges measuring 699 tons.

river. Mooring chains and buoys are provided for ships, and steamboat landings have been established in spite of the vigorous opposition of adjoining owners and occupiers, who involved the conservators in a chancery suit on the building of the very first, and in no less than five before the completion of the third at Old Swan Pier. Lastly, the conservators have been a valuable instrument in the hands of Parliament for the purpose of restraining that pollution which was the first fruits of sanitary legislation. How far, however, their energetic efforts have been successful will be considered further on.

A consideration of the Board thus established by the six Acts from 1857 to 1878 will show that it may fairly be taken to represent most, though not all, of the authorities having an interest in the river. It consists of twenty-three members, of whom the Lord Mayor and Deputy Master of the Trinity House have their seats ex-officio; while the Privy Council and the Board of Trade each nominate one, and the Admiralty two representatives. The City of London is represented by two Aldermen and four Common Councilmen; and the Corporation of the Trinity House by one member. Owners of certificated passenger steamers plying on the Thames not seaward of Gravesend send one member, and dock owners and wharfingers send another. The owners of lighters and steam tugs are represented by two members, and lastly, the old Upper Navigation Commissioners by four.

There are, however, still *ten* other bodies having a jurisdiction over the river, of whom the rights of three at least are brought into conflict with those of the conservators.* These are the Watermen's Company, the Thames Valley Drainage Commissioners, and the Metropolitan Board of Works.

The first of these may be disposed of very briefly. The Watermen and Lightermen's Company, which was first founded in 1556, and confirmed in its privileges by several subsequent Acts, was entrusted with the management of the watermen, bargemen, wherrymen, and lightermen on the river, its freemen being empowered to employ apprentices, and the company regulating the qualifications of watermen's

* The seven non-conflicting bodies are, the Trinity House, the Admiralty, the Board of Trade, the Chartered Dock Companies, the Conservators of the Medway, the Trustees of the Lea, and the Commissioners of Sewers. The Metropolitan police too have a jurisdiction over the Thames from Staines to the Nore.

licenses. A certain control over the watermen was given to the conservators by the Watermen's and Lightermen's Amendment Act,1859, which provided that no bye-laws of the company should be valid till approved by them, and was further extended by the Act of 1864.

Of the remaining two conflicting authorities we will first consider the Thames Valley Drainage Commissioners, a body called into being by the want of any authority to deal with the floods in the Upper Thames Valley, and the powers of which much resemble those to be given to the new Conservancy Boards, reserving for later consideration the other, which is calculated to interfere with the existing powers of the conservancy as to water supply, fishery, and navigation.

In 1869 the conservators brought in a bill to enable them to tax riparian lands from Long Wittenham to Cirencester, in order to lower the water level round Oxford. This bill, which was opposed by the riparian owners and occupiers, had to be abandoned, and led to an application to Parliament by the latter for powers of land drainage on a comprehensive scale. The result of this was the Thames Valley Act of 1871, which incorporated the commissioners, giving them rating powers over the Thames Valley above Clifton Hampden, an extent of 55,472 acres, and a jurisdiction for executing works for the drainage, embankment, and irrigation of lands, and the control and regulation of floods over that area. The consent of the Thames Conservators was, however, required to the execution of any works in the bed and soil of the Thames, provision being made, if they objected, for an appeal to the Board of Trade. While, therefore, the Thames Valley Drainage Commissioners are confined to works of land drainage, irrigation, and flood prevention, the powers of the conservators are limited to navigation, the prevention of pollution, and the preservation of fish.

The first commissioners, as a preliminary, obtained plans and levels for ascertaining the limit of their jurisdiction, divided their areas into districts, fixed the number of the district boards, and elected their members. By means of the Ordnance Survey Department they had surveys taken of the Upper Thames at a cost of £5,000, thus making their preliminary expenses, including the cost of their two Acts, nearly £8,000. Two of the districts have undertaken works for drainage on tributaries, but in 1877 no general plan had

been laid down, and, in the evidence before the House of Lords' Committee on Floods for that year, Mr. Hawkins, Town Clerk of Oxford and Secretary to the Commission, stated that he represented its *whole staff*. The House of Lords' Committee recommended cordial co-operation between the conservators and the Thames Valley Commissioners, and it is believed that some plan may be ultimately arrived at which may admit of these two conflicting authorities acting in concert for the better conservancy of the river.* For the present, however, no authority exists with special powers for the prevention of floods or arterial drainage between Long Wittenham and the metropolis; and it is probable, as was pointed out by Mr. Hawkins in his evidence above referred to, that landowners below Long Wittenham will complain of the too rapid discharge of water and consequent flooding as soon as the drainage work of the commissioners has commenced.†

We will now proceed to consider the jurisdiction of the Metropolitan Board of Works, which, as is well known, was established in 1855, by 18 and 19 Vict., cap. 120, to provide for the better management of the metropolis in respect of sewerage, drainage, paving, cleansing, lighting, &c. By the Metropolis Water Act, 1871, it was also constituted the water authority for the metropolis, exclusive of the City of London; while by the Toll Bridges Act of 1877 it was empowered to acquire, by purchase, all the bridges over the Thames, and to open them free to the public. The Act of 1855 vested the main sewers of London in the Board, and all other sewers in the Vestry and District Boards, giving power to prevent all or any part of the sewage within the metropolis from flowing or passing into the Thames in or near it. It also required the Board and Vestries to strengthen, alter, and repair all banks, defences, &c., abutting on all watercourses within their district, in order

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* It should be stated that in their last Report the conservators state that they have been in communication with the Thames Valley Drainage Commissioners "as to carrying out a scheme for the improvement of the river in the district of the commissioners, and it is hoped that the works required for this improvement will shortly be commenced and carried out conjointly by the two Boards."

† Since this article was written, the greater part of the Thames Valley between Reading and the metropolis has been inundated by floods to an extent greater than has been known for many years. The writer, however, is unable to say how far these are to be attributed to any works, or neglect to carry out works, on the upper river.

to prevent floods, whilst it at the same time abolished all such powers of the Metropolitan Commissioners of Sewers.

Eight Acts were passed relating to the main drainage of the metropolis. Of these, the Main Drainage Act of 1858 enacts that—"Whereas it is necessary, with a view to the health of the metropolis, that works should be speedily undertaken and completed for the purification of the Thames and the improvement of the drainage of the metropolis," the powers of the board should be extended; and they were empowered to borrow £3,000,000 for the purpose, works executed by them on the bed, bank, or shore of the river being required to be approved by the Lord High Admiral and the Thames Conservators. Subsequent Acts empowered them to borrow a further sum of £1,200,000, and sanctioned the incorporation of a company for utilising the sewage of the metropolis north of the Thames, and, after much discussion, the works at Barking were decided on, and the Government then in power introduced an Act which left the Metropolitan Board free scope to carry out their plans, with the result that 120,000,000 gallons of diluted filth are poured daily into the river in the vicinity of Woolwich. This, it is hardly necessary to remind our readers, has led to a conflict between the Corporation of London and the Metropolitan Board of Works, which has necessitated the appointment of a Royal Commission to inquire into the pollution of the River Thames.

There is, however, another aspect of the case besides the sanitary. According to the evidence of Mr. Bailey Denton, before the House of Lords' Flood Committee, 1877, the road *detritus* or *débris* discharged into the Thames at the entry of the Port of London is being deposited in very large quantities: and, while a bar is being formed at Barking, under drainage and the improvement of land are throwing down water in the upper part of the river. One consequence of this was pointed out by the President of the Institute of Civil Engineers, in his address on his election on the 11th January, 1881, when he stated that while minor navigable rivers, such as the Clyde, the Avon (Bath), the Tyne, and others have been deepened so as to admit of the passage of large vessels at low water, there is only an available depth of about 15 feet at that period of the tide between Gravesend and Woolwich, and for a considerable distance below London Bridge it is practically restricted to 12 feet by the crown of the Thames Tunnel. Improvements

to a limited extent are being effected by the conservators out of the funds at their disposal, by dredging the navigable channel, but their laudable attempt to compel the Metropolitan Board of Works to remove the obstruction caused by their outfalls has, it is to be regretted, hitherto failed; it having been decided, at an inquiry held under the Conservancy Act of 1870, that no obstruction to the navigation sufficient to render the Metropolitan Board liable for its removal had been caused.

The jurisdiction of the Board with regard to the prevention of floods is another point in which their action has been, though perhaps unjustly, challenged by the public. "It is often better," says Greville, "to have a great deal of harm happen to one than a little: a great deal may arouse you to remove what a little will only accustom you to endure." It is perhaps fortunate for the poorer classes of London that the misery to which they have been subjected by floods was such as to rouse general sympathy so strong as to lead the Board to submit a bill for the enlargement of their powers to the House in 1877. This, however, had to be withdrawn, in consequence of the resolution of a Select Committee which recommended a different course. A second bill, prepared by them previous to the session of 1878, was abandoned owing to unavoidable delays, and it was not till 1879 that the Metropolis Management Amendment Act gave them the powers they require, but which, owing to the non-completion of the works, were totally insufficient to prevent the disastrous overflows which have of late years carried misery into so many homes.

This statute abolishes the provisions of the principal Act so far as they relate to the execution and maintenance of flood works and banks, and places the supervision of these under the Board, authorising them to make plans of the necessary works, and submit them to the vestries and owners affected, who, if they do not execute them within twenty-eight days after receiving a copy of the plan, may be compelled by the Board to do so. The Board may also, when necessary, erect flood works of a temporary nature, and are empowered to give compensation for damages, when satisfied of the equity of the claim; while all expenses are to met by rates levied by the districts and vestries.

It will be evident from a consideration of the above facts that the functions of the Metropolitan Board, as what may be termed Ædiles of London, are, efficiently as they are

performed, of a nature which must almost inevitably bring them into conflict with any authority entrusted with the guardianship of the river for the purposes of true conservancy. Their uses of the Thames are what may be termed purely *hostile*,—defensive in so far as they build bulwarks to keep out its inundations, and offensive from their use of it as a sewer into which they discharge their refuse. In both cases, however, they are of course only performing to the best of their power the duties cast upon them by the Legislature, which, with a somewhat startling incongruity, passed the Main Drainage Act of 1858, the very year after it had created the Thames Conservancy Board, and thereby expressly enjoined the latter body to "dredge, *cleanse, scour* the river Thames, . . . and to abate and remove all *impediments, obstructions*, and *annoyances*, and all *nuisances* and *abuses* whatsoever in the river Thames or on the banks and shores thereof which may now, or at any time hereafter, be *injurious* to the river Thames, or *obstruct* or lead to obstruct the free navigation thereof."

The evil effects to conservancy of this practice of legislating for particular cases instead of in pursuance of a broad general principle, is to be found in the Thames above London as well as below it. It was in order to deal with the sewage of the metropolis that Parliament sanctioned the pollution of the river at Crossness and Barking. In order chiefly to insure a pure water supply to the metropolis, it gave the conservators their present large powers for checking pollution, and, after encouraging river-side towns to drain into the Thames, threatened them with heavy fines for doing so.

As a source of water-supply, the importance of the Thames rests principally on the fact that no less than six of the companies that supply the metropolis have their works on its banks, and abstract daily about one hundred million gallons from it. The water-supply of the metropolis is regulated by 15 and 16 Vict., cap. 84, amended by the Metropolis Water Act, 1852, Amendment Act of 1871. These statutes prohibit companies undertaking a supply from taking water from any part of the Thames below Teddington Lock, or any part of its tributaries within the range of the tide; and also require all water supplied for domestic use to be effectually filtered unless pumped from wells direct into covered reservoirs, providing for the appointment of a water-examiner by the Board of Trade to ascertain whether these requirements have been complied

with.* By the Thames Navigation Act of 1866, the companies, as has been stated, are empowered to complain of works likely to injure the purity and flow of the water above their sources of supply, and are made liable to contribute to the expenses of the conservators, nearly the whole burden of enforcing the partial purification of the Thames thus being laid on London through the rates it pays to the companies.

The conservators have done all in their power, by the serving of notices and the institution of legal proceedings, to check the pollution of the river and its tributaries throughout the area under their jurisdiction. As evidence of the results of their labours, we may quote their latest report for the year ending December, 1881:

"The river above the intakes of the water companies is now practically free from sewage contamination; the sewage works at Oxford, Abingdon, Reading, Windsor, and other places are working in a satisfactory manner. Some cases of sewage pollution, chiefly on the tributaries, have been reported to the conservators by their inspectors, and in five instances convictions have been obtained and penalties inflicted. In the district between the intakes of the water companies near Kingston, and the western boundary of the metropolis near Chiswick, the sewage still passes into the river, the penalties against this pollution of the river being suspended for the present by an Act of Parliament confirming a provisional order granted by the Local Government Board at the instance of the local authorities. The conservators hope that before September, 1883, the date when this Act expires, some scheme may be devised for diverting from the river the sewage of Kingston, Richmond, and other places in the Lower Thames Valley district."

We have endeavoured to show that the defects in the system of the Thames conservancy may be considered as attributable to the conflict of authorities. Before, however, attempting to apply the lessons it teaches to the principles of the proposed legislation for other rivers, it must be pointed out that the *general* tendency of legislation as to the Thames has hitherto been, on the whole, satisfactory. It cannot be doubted that in this, as in other matters, it has been in the direction of centralisation, and of gradually consolidating, in a strong and far-reaching authority, all the

* By 35 and 36 Vict., cap. 69, the Local Government Board took the place of the Board of Trade.

functions of conservancy hitherto exercised by various and conflicting bodies.

"A general desire has been expressed," say the commissioners appointed to report on Thames traffic in 1879, "that the jurisdiction on the river should be simplified and rendered more efficient; but no desire has been expressed to abridge the present powers of the conservators. On the contrary, it is generally admitted that the principal function for which the conservators were appointed, viz., the maintenance and improvement of the physical condition of the river, has been well and efficiently performed; and the various suggestions that have been made point to an extension of the jurisdiction of the conservators, and the consolidation in their hands of various duties and powers now exercised by other bodies. . . . On the Thames, as in other harbours of the United Kingdom, the tendency of modern legislation has been to place the whole authority over matters connected with navigation in the hands of one body, representing more or less completely the different interests concerned in it. Such a body, in the case of the Thames, is to be found in the Thames Conservancy Board, and your committee are of opinion that it is to this Board that the public must ultimately look for the efficient supervision of the navigation, and the performance of duties hitherto entrusted to various bodies. Your committee have accordingly in their recommendations on the specific subjects referred to them suggested a considerable extension of their powers and duties."

A consideration of the facts that have been adduced with respect to the Thames proves what can be done with regard to conservancy, the comparative completeness of the system being in this case probably due to the circumstance of its being the metropolitan river, and thus enjoying exceptional advantages in being more readily brought before the tribunal of public opinion. It might, therefore, be argued that were a similar principle to be applied to each of our rivers—as appears to have been contemplated both in Lord Spencer's and the Duke of Richmond's bills, and to a certain extent in that now before the House—it would meet all the requirements of the case. Setting aside, however, the fact that the present measure deals only with the prevention of floods to the exclusion of the other uses of conservancy, there would still remain a number of separate bodies, each perhaps efficient in itself, but working in isolation and on inexpansive principles. As has been shown, each branch of conservancy has hitherto been treated

without regard to the others. Though the Salmon Fishery Commissioners have control over districts each of which comprises two or three rivers and a considerable seaboard, and though, as regards water-supply, schemes have been elaborated which map out the kingdom into distinct watersheds and catchment basins, no machinery exists for dealing with conservancy generally on a similarly broad basis. In Prussia, Italy, France, and, we might almost say, over the greater part of the Continent,* main and navigable rivers at least are under State control, and are managed by departments expressly constituted to deal with agriculture. Though English institutions and vested interests might present some difficulties, they are not such as would be likely to stand in the way of a matured Government scheme of centralisation. The proper constitution for the separate boards appears to have been already decided upon, and with regard to the principle of rating, it seems to be generally admitted that all who have the use of a waterway should contribute to its maintenance. The arguments in favour of the plan proposed both in Lord Spencer's and the last Conservancy Bill, are very clearly stated in a paper read by Mr. Wheeler before the British Association at Dublin in 1878. He contends that since every acre of land within the watershed of a river receives and contributes its quota of rainfall, so it should provide also its share towards the maintenance of the means by which that rainfall is disposed of. The expenses of police, sanitation, poor relief, compulsory education, are alike now shared by urban and rural populations. A river basin bears the same relation to the lands within its area as a highway does to a highway district, and the further lands are removed from the outfall of a river, the greater the distance the rainfall will have to traverse to reach it. It is therefore only just that all should contribute to its maintenance; and when it is considered that works hitherto maintained by owners on the lowlands have now been rendered useless by the drainage of the uplands, it is only fair that the latter, as well as the towns that derive benefit from good drainage, should contribute their share of the

* As to river conservancy in Italy, Hungary, and France, see an able article in the *Edinburgh Review* for May, 1881, on "River Floods." See too as to conservancy in Germany and other countries on the Continent the remarks of Mr. Jacob in an interesting paper read before the Institution of Civil Engineers, (session 1881-82), and the observations at its discussion of Messrs. Hagen, de Lagréné, and other foreign engineers, *Minutes of Proceedings, T.C.E.*, Vol. LXVII. Part 1.

cost. Nor need such contribution be excessive. Mr. Clarke Hawkshaw has calculated that, taking the area of the Thames Basin at about three and three-quarter million acres, and assuming the average annual value to be £2 per acre, a rate of one penny in the pound would produce £31,000 per annum; and taking the total amount of land drained by rivers in England to be 54,971 square miles, a similar rate at the same average annual value would yield £293,178.

All the facts that we have been considering, taken in conjunction with the exceptional advantages of our water system, and the amount of scientific knowledge that exists regarding it, point to the establishment of a water department, "one," to quote Mr. Easton, President of Section G. of the British Association, at their meeting in Dublin, 1878, "not only endowed with powers analogous to those of the Local Government Board, but charged with the duty of collecting and digesting for use all the facts and knowledge necessary for a due comprehension and satisfactory dealing with every river basin or watershed area in the United Kingdom—a department that should be presided over, if not by a Cabinet Minister, at all events by a member of the Government who can be appealed to in Parliament."

ART. III.—*Lettres de Synésius, traduites pour la première fois, et suivies d'Études sur les Derniers Moments de l'Hellenisme.* Par F. LAPATZ. Paris: Librairie Académique. Didier et Cie.

"A BISHOP, being a man of God, should be like God. He should be collected, solemn, should never forget himself and trifle. A thousand eyes are fastened on him, watching over his gravity; he can only please by being severe; it is derogatory if he laughs. Even when his mind is occupied with Divine mysteries, he cannot be alone; the multitude has a right to know what he thinks and what he speaks, for he is their master, it is his duty to teach them. Add to this that he must attend to every one's business; he belongs to every one; if one petitioner only fails to catch his eye, every one talks. What a superhuman task! What a life! What a hell! He no longer belongs to himself; he is the prey of his people. A bishop! this is what I think he should be; a divine man, without spot or reproach, pure enough to purify others."

Such was the ideal bishop of the fifth century. From the overseer of souls at that period very real work was expected. Not only was he to guide a wayward people aright in things spiritual, but he was to settle disputes, to protect the oppressed, to convert the oppressor to repentance and restitution, and to defend against wrongs of all sorts the flock that had chosen him for its shepherd. Abundant work of this kind lay ready to the bishop's hand in those decaying days of Imperial Rome, splendid and base beyond all others in history. The description we have quoted of the man who ought to fill this position of terrible responsibility is from the charming pen of Synesius, elected against his own will to be Bishop of Cyrene, a province in the diocese of Egypt, in the year of grace 410. His name cannot fail of its place in any history of the African Church, but is most familiar to the English reader through its introduction in Charles Kingsley's greatest work, *Hypatia.* The type of Christianity presented by Synesius was evidently dear to

the heart of the English Churchman, whose own tastes and views were not very unlike those so frankly revealed in the hundred and fifty-five letters, from the busy pen of the African bishop, which still survive. From these letters Kingsley drew much of his material, and to them he referred such of his readers as desired a more intimate acquaintance with fifth-century Christianity. The recommendation remained of necessity fruitless in most instances, so long as the letters continued hidden in their original Greek; but a spirited translation of them into French, with ample notes, now permits such readers as must take their classical literature at second hand to judge for themselves of the merits of that brilliant sketch by which the patriot Bishop of Cyrene has hitherto been known to the general public.

The letters by numberless hints reveal the profound corruption of Roman Africa, and the miseries of its helpless people, but are, nevertheless, pervaded by an atmosphere of purity and light. Their writer was a true Greek, and a spirit of serene cheerfulness remained with him till accumulated woes crushed it. He began life under happy auspices. He was the younger of two brothers, children of a noble and wealthy house; a tender friendship subsisted between them. Evoptius, the elder, preferred city life, fixing his abode sometimes at Alexandria, and sometimes at Phycus, a marshy and feverish seaport of Cyrenaica. But though Synesius knew well and enjoyed the brilliant Greek society of Alexandria, he made his home in the country parts of Cyrene. This choice of residence would seem to have been determined by a sincere love of natural beauty and of rustic pleasures, displayed with charming grace and a little ostentation in a hundred passages of his correspondence.

Young, wealthy, gifted, a patrician by birth and by conviction, happily married to a wife who had borne him three sons, it was not surprising that Synesius should shrink from the summons which bade him exchange home and happiness, learned leisure and country joys, for the hard task of ruling a stormy diocese, and defending an ignorant populace against itself and its enemies. His eloquent description of the ideal *Episkopos* was not a sketch from life: no actual bishop could have sat for the portrait, although the painter says: "I know there exist rare and sublime souls, unsoiled by the dust of worldly things: I admire them: their ethereal natures are found equal to the work

both of man and God." He exaggerates the saintliness of this visionary image in order to contrast with it an unflattered picture of himself, and to show how unfit he was for the charge men sought to impose upon him. He paints himself gay, easy-tempered, fond of pleasure, a lover of books, of philosophising, of hunting, "heavy in faults and light in merits, weak within and weaker without, foolish shepherd of one soul," and—most serious objection of all—a married man with no idea of separating from his wife, and a Christian of imperfect orthodoxy. On these two last points the bishop-elect showed himself obstinate. The ascetic spirit, whose influence in the Church was great and growing, had set aside the word of St. Paul, that a bishop should be the husband of one wife, and had ruled that he must be husband of none but of the widowed church that called him to govern it. Synesius declared that nothing should make him put away the bride who had been given to him by God, by the law, and by Theophilus the Patriarch himself. He was a highly cultivated Hellenist, proud of his Spartan descent, delighting in the writings of Plato and his commentators, in the immortal poems of Homer, and in all the magnificent literature of Pagan Greece. With these last his acquaintance was far more intimate than with the sacred writings whose authority he acknowledged, but from which he could never quote with any fluency. His Christianity was more of the heart than of the head, and his theology could only express itself in Platonic phrases. Nothing could have induced him to disguise his opinions, and to avoid the episcopate he set them forth with eagerness. "My creed," he wrote, "is shorter or longer than that of the vulgar. For example, I will never believe that our body is the elder of our souls; never, that the world will perish; never, that man will rise from the dead; let the populace believe these marvels. But I am a philosopher, and if I worship truth alone, I tolerate error, the wise man compassionates it, dissimulates seasonably, adapts himself to every one. Truth is to the ignorant multitude what daylight is to the diseased eye; that splendour is unbearable to it; falsehood soothes and charms it. I can make use of prudence, and, thanks be to God, I honour the souls of men. If that will suffice, I can be a bishop, a philosopher in private and a believer in public, teaching neither one thing nor another, letting every one take his own way. . . . But if I must think and act like the people, be one of them in fact,

I cannot so far constrain myself; look to it; I should betray myself quickly. The populace would have me preach and talk about God to them; I hold that such themes are fit only for elect souls, they are not meat for the vulgar. . . . Shall I, when a bishop, set forth as true what I esteem absurd? Never; it would be nothing less than monstrous. God is Truth; he who lies offends Him; hypocrisy is the basest of vices." The pride of the ancient world of thought, its contempt for the unlettered multitude, in which it was at such variance with the teaching of Christianity, was surely never more conspicuous. The letter containing this thoroughly honest "nolo episcopari," though addressed to the brother of Synesius, was designed for Theophilus, Patriarch of Alexandria, the powerful metropolitan. With him it rested to confirm or annul the vote of the people of Ptolemais, who had chosen Synesius for their bishop in the hope that he would prove a powerful champion of their rights against their tyrannical and murderous prefect, Andronicus. The protest failed in its object: no lack of orthodoxy or of austere saintliness could be set against the wealth, rank, and character of the people's candidate, while his martial spirit was but another recommendation.

After a struggle of seven months Synesius gave way, and was duly consecrated and enthroned. He had reason to dread the perilous height to which he was borne by this gust of popular favour, and his subsequent lot was too clearly foreshadowed in the following remonstrance: "I know myself well: if I am to be always on foot, always breathless, passed from hand to hand as a consecrated tool, I shall perish without fail; my body will soon lose its strength and my soul its wings." The letters which remain to us from his hand cover a space of twenty years: nothing can be gayer, more sparkling, more full of cheery gossip and benevolent activity, than those of earlier date; nothing sadder than some of the later ones, written during the stormier years of his episcopate. His domestic sorrows, the woes of his country, crushed under a pitiless prefect and assailed by endless hordes of barbarians, together with the burdensome honours from which he had shrunk with well-grounded apprehensions, were at last too much for the light heart and ardent spirit; and in 414 Synesius died, at the too early age of forty, having ruled as bishop for four years only; happy yet in that he did not live to see the year which was disgraced by the brutal murder of his friend

Hypatia. His children were all cut off in the bloom of early youth. "I ought not to outlive my happiness," wrote the childless father; and he did not outlive it. "A flood of woe desolates my last days and strips me of all joy. May God take away my life, or else my recollections of the dead! Farewell." Was the wife, whom Synesius had refused to put away on his elevation to the bishopric, among the dead whose remembrance tortured him? There is no word which asserts it: yet, on the other hand, there is no hint of her living presence, which would surely have comforted the heart of the dying bishop.

It is a touching plaint that comes to us across the fourteen intervening centuries; but we will turn awhile from it and listen to the gayer stories of his early years, spent under the transparent sky of Egypt, in the pure air of Athens, and amid the splendid courts of Byzantium. For dearly though Synesius loved his own country, the fruitful Cyrenaica, and boldly as he praised his climate, its soil, its produce, preferring them to all others, yet he was often a wanderer. One of the earliest letters, addressed to his brother, recounts the motives which had induced him to undertake the pilgrimage to Athens. The first reason assigned is curious enough: his friends in Alexandria, both priest and laymen, had been dreaming dreams, and warned him of something very serious ready to befall him if he did not undertake the "pilgrimage" in question. Whether the young, wealthy, imperfectly orthodox noble was in some real danger of which a veiled warning was thus given, or whether we have here a sample of ancient superstition, is not clear. The effect on the mind of Synesius, however, is plainly indicated, and startles us a little, appearing as it does in a correspondence that is often quite modern in tone. Synesius cheerfully yielded to his friend's entreaties, having a motive of his own for undertaking the voyage, which he sets forth with a spice of malice. "I shall no longer," says he, "be obliged to hear with reverence the teachings of the Greek pilgrims." The Greek colony in Egypt seems to have entertained a profound respect for the noblest city of the famous mother country, and such Alexandrians as had visited Athens were prone to give themselves airs of superior wisdom—as though, Synesius hints, they could better understand Aristotle and Plato for having seen the land once honoured by their presence. When at last he beheld it, Athens disappointed its new votary. He

saw in it, what we can no longer see, the Academy, the Lyceum, the Porch; but he could not hear the words of Plato or of Zeno. The unworthy successors of these great men, being unable to win the attention of the Athenian youth by the charm of their discourses, bribed them to listen and applaud by liberal gifts of honey from Hymettus. Even the Porch no longer merited its title of "many-coloured:" a thievish proconsul, with a taste for the fine arts, had despoiled it of the paintings of Polygnotus, which depicted the battle of Marathon. Of this robbery and its perpetrator history offers no other trace; the degenerate Athenians did not care to say much about the ill-deeds of a proconsul. "Happy Alexandria!" sighs Synesius; "there blooms Hypatia, wisdom and grace. Athens, that ancient sanctuary of divine men, is become a meeting-place for triflers and merchants."

No details are given of his outward or homeward voyages, which were doubtless smooth and prosperous; but a later seafaring journey, merely from Alexandria to Cyrene, furnishes by its absurd misadventures one of the longest and most amusing letters in the collection. The galley in which Synesius embarked for his homeward voyage, after a visit to his brother in Alexandria, in the year 400, was commanded and steered by a Jew called Amaranth. At least one-third of the Alexandrian populace was composed of Jews, and such of these as were rich were compelled by the imperial law to engage in the sea service: they were to own and work galleys at their own risk. Amaranth might have been rich when he began his enforced career as a sailor, but that career had profited him little. The poor Jewish captain, "weary of life and still more weary of debts," was perhaps, as his young passenger slily hints, capable of rejoicing in moments of danger when all others trembled, because death would be for him a good stroke of business, enabling him to escape from his creditors. Very lively is the picture presented to us of the ship, the passengers, and the crew of this luckless captain. Everything in the equipment of Amaranth's galley betrayed poverty and makeshift. The anchors should have been three in number, but in fact there was only one; the sails when torn by a tempest had to be patched anyhow and hoisted again, for there was no reserve stock from which to replace them; and the partition which should have decently divided the passengers' cabin into men's and women's apartments

was but a fragment of sail-cloth, tattered beyond all patching. The crew was worthy of the ship. More than half of the twelve sailors were Jews—"a treacherous generation, who would think it a pious deed to despatch Hellenes into the other world;" and all the twelve were more or less deformed, for such poor creatures were cheaper bargains to a half-ruined captain. The ship resounded with their shameless jests. The passengers, fifty in number, showed themselves true Greeks, passing quickly from childish mirth to childish terror; now joining in the coarse laughter of the sailors, now denouncing them as ill-starred beings to whom the bad weather they met might be attributed; and now, alarmed at the reckless steering of the captain, assailing him with cries of terror. Their clamour grew wildest at the setting of the sun. It was the eve of the Sabbath, and Amaranth, the devoutest of Jews, as soon as the last sparkle of light vanished from the waves, dropped the rudder, and prostrating himself on the deck, began his evening reading of the Scriptures. In this engagement he suffered nothing to disturb him; he seemed deaf alike to the tumult of the sea and the wrath of his passengers. Suddenly the pilot ceased his devotions and resumed the helm. "The Law permits it now," he said; "our lives are in danger;" ominous words, at which his passengers, both men and women, broke forth into groans and tears, while the grim pilot steered tranquilly with a sardonic smile. Meanwhile, the young Synesius was calmly meditating on the ancient horror of death by drowning, which he supposed due to a belief that those who perished thus perished entirely, both body and soul—a strange opinion, which he thought could be plainly traced in Homer; and he watched the passengers decking themselves in golden ornaments—the women who had a good stock of precious trinkets lending them freely to such men as had none. This sort of funeral toilet was quite usual in cases of impending shipwreck; the golden spoil found on a drowned corpse it was supposed would induce the finder to bury it. Happily this precaution proved needless.

After several days, some of them spent on a desert shore, near which the galley cast anchor, and some in a helpless struggle with stormy seas, the vessel was rescued from a position of great peril. A handsome old man in peasant's garb put off from the rocky shore in a little skiff, assumed the management of the galley, and piloted it to a safe

harbour—"a pretty and convenient little port, called, as I think, Azarios." The new pilot was a Christian hermit, a true Roman, who had fixed his lonely abode on a point of special peril, in order to guide endangered sailors into safety. Many other weather-beaten ships, directed by him, entered the harbour of refuge; and after some weary days, beguiled by the toil of fishing, the voyagers were able to resume their journey, and conclude it in peace. The voyage of Synesius is related in a style of the gayest banter, and its incidents are more grotesque than pathetic; yet its general colouring recalls the narrative of St. Paul's shipwreck, different though that is in its majestic simplicity of tone, and shows plainly how little progress the science of navigation had made since the first Christian century. As on the rocky shores of Melita, so now, the "barbarous people," Libyans in this case, showed the distressed voyagers "no little kindness;" yet even here is a ludicrous touch. The Libyan women, corpulent, like the Turkish beauties of to-day, were astonished at the slender grace of the Alexandrian ladies, and showed their fond admiration by loading them with dainties. Especially were they bewitched with a slave girl from Pontus — a miracle of slenderness, who became quite rich with the gifts of the Libyan dames. A more pleasing and noble figure is that of the heroic hermit, who sought to serve God by rescuing tempest-tossed seamen. His unwonted self-sacrifice shows that the "enthusiasm of humanity," so totally unknown before the Christian era, was already leavening the mass of pagan society. The proud philosophy of which Synesius thought so highly could never inspire such devotion; the lowly religion, dear to the common people, in which the Bishop of Cyrene believed with his heart unto righteousness, was alone capable of producing such effects.

The voyage so gaily related was one of small importance; but Synesius was not long returned from a serious and momentous journey, with regard to which we get no details, and only scattered hints of its results. Synesius was a member of the Senate of Cyrene—a senate of small influence, and having more affinity with the town council of a modern borough than with the great Senate of Rome. The honour of being a senator was burdensome, costly, and supremely disagreeable, but hardly to be avoided by any free citizen who was born to rank and wealth. Synesius

was full of genuine patriotism, and though he would willingly have aided his brother to escape this oppressive dignity, he never sought to evade it for himself, even when his election as bishop offered him the fairest occasion of doing so. His countrymen, ground down by taxes and other political burdens—in this resembling most provincial subjects of the emperors, whether these ruled from Rome or from Byzantium—at last summoned courage to complain aloud, and chose him ambassador to plead their cause in the imperial city. Synesius was but twenty-two when he departed on this mission. It occupied three years. He was received with distinction, and lodged in an imperial palace; he made many friends among high-placed Byzantine literati; but month after month passed, and the ambassador from the Pentapolis could not obtain a hearing. At length, by favour of one friend more powerful than the rest, he was admitted to a solemn audience in presence of the Senate.

The Emperor of the East was then Arcadius, the imbecile son and successor of Theodosius the Great. He had long been a mere tool in the hands of the eunuch Eutropius; and though that astute and unprincipled minister, the worthy forerunner of future Turkish grand vizirs, had at last fallen, and though Synesius owed the long-coveted audience to his overthrow, the evils in which his power originated, and which his power had increased, were not removed by his downfall. Synesius had the privilege of pronouncing before emperor and senate an elaborate oration full of appeals to glorious antiquity—a thoroughly juvenile performance. But had it been a masterpiece of political sagacity instead of a display of unpractical eloquence, it could not have enlisted the sympathies of his hearers on behalf of the distant and obscure Pentapolis. Nor were its grievances so extraordinary as to call for special redress. Unjust officials, oppressive taxes, force and fraud in high places, was it of such every-day matters that the Libyans complained? What Roman province could not have drawn up a similar catalogue of afflictions? Some trifling remission of taxes was all that the eloquent deputy obtained to reward three years of waiting, spent in all the sickness of hope deferred. At the end of that time he left suddenly—so suddenly, that he bade farewell to no one. "You are sufficiently acquainted with the circumstances that determined my flight," he writes to Pylemenes, a friend left behind at Constantinople, "the earth was trembling, the people

were in despair: nothing was heard but clamour, tears and prayers. I thought the sea safer than the land, and hurried to the port. Farewell I bade to no one, except to Photius, but how? calling to him from afar, and waving my hand to him."

Synesius had come to Constantinople well furnished, not only with high hopes and ready eloquence, but with abundant material defences against the cold winters of Thrace, which inspired him with amusing dread. Among his store of warm garments and wraps was an Egyptian carpet, handsome and ample, capable of serving as a mattress, were it needful. A friend made at Constantinople, "the stenographer Aster," one of a great army of imperial clerks, fell in love with this carpet, and it was promised to him, whenever the African deputy should return to his own warm skies and escape from "the snows of Thrace." But Synesius had fled so hastily from the trembling city that his promise remained unfulfilled. Hence a charming letter to Pylemenes, relating the numerous efforts made to find a ship that would convey the promised gift, and begging his friend to see that it was duly delivered to Aster, who is carefully described—a dark, thin Syrian, of medium height, dwelling opposite the imperial palace of Placidia, "the august sister of our august masters." This is by no means the only indication offered in our Letters of the difficulties besetting communication in ancient times. Messengers, though not abundant, were more numerous than trustworthy. When a faithful and speedy letter-carrier could be found, Synesius made haste to describe and recommend him—"Our friend Peter—your friend, my friend, and the friend of Hypatia—happy man, from what hands he will receive the letter I send!" Sometimes all the letters written during a year to some distant friend were returned to the writer: sometimes their fate remained unknown, and unhappily the gifts which they should have heralded shared that fate. "You may weep for my ostriches, yours rather," Synesius writes; "you will not have the chance of admiring these desert birds in your poultry-yard." The chase of the ostrich was in early life one of the favourite sports of Synesius, and it was with a double pride in his own skill and in his country's wealth of strange game that he had despatched the rare birds to Constantinople. Hunting was one of the joys which he dreaded to sacrifice in becoming a bishop. "I love noise, horses, weapons," says he; "when a child I used to get scolded for my tastes; how grieved I should be

to see my hounds idle, my bows worm-eaten! But if God wills it, I renounce hunting."

The period spent in Constantinople remained as a dark shadow in the memory of the Libyan deputy, and he continued to refer to it with bitterness until heavier and more personal sorrows rendered this grief insignificant. But he corresponded carefully with the friends he had made in the imperial city, and strove to utilise such influence as they possessed for the good of his country and of those about him. Favours for himself he did not solicit. To one powerful friend, Nicander, he recommended the interests of Theodosius, who had wedded Stratonice, the beloved and beautiful sister of Synesius. Theodosius was enrolled in the Imperial Guard, a highly ornamental corps, composed of tall, handsome, golden-haired warriors, whose lances and shields also were golden. But the husband of Stratonice lacked advancement, which could only be obtained by interest, not by merit; and the plea in his favour is the single approach to self-interest in all the correspondence under our notice. The letters to Byzantine friends, though written with invariable grace, are much less charming than those in which Synesius amused his brother with home gossip. It is in these that we find the mocking sketch of a recent bride whose uncle was so inconsiderate as to die during her honeymoon, and who went to pay the customary visit to the tomb of the departed arrayed not in mourning garb, but in all her bridal glory—clad in a purple robe, decked with jewels—while she frankly abused the deceased for the awkward time he had chosen to die in. This free-spoken lady was a kinswoman of Synesius, but her folly is not spared on that account, and the more than suspicious pedigree of her bridegroom is set forth with equal malice. Here, too, we get glimpses of sacred family joys. The son of Evoptius pursued his boyish studies with his uncle at Cyrene, and his progress is related with pride. "How many lines do you think Dioscuros will learn in one day? Fifty. He never hesitates; never stops to recollect." The daughter of Stratonice, charming as her mother, was so beloved by her two uncles, that they disputed with each other the delight of entertaining her, Synesius reproaching Evoptius with his cruelty in depriving him of the lovely child in order himself to engross her society. One letter gives hasty intelligence of a travelling merchant coming from Athens, laden with such sandals, such mantles, such

head-gear, as the brothers could never procure, even in Alexandria; another is full of inquiries as to a precious plant, almost extinct, the silphium, which Evoptius had succeeded in cultivating; it was owing to "the Barbarians" that this plant, equally valued in medicine and in cookery, and selling for its weight in gold, had nearly disappeared.

Other letters, in sharp contrast and in rapid succession, relate an invasion of these same "Barbarians," and the means adopted to repel them. Synesius pours all his vials of witty scorn on certain warriors of Cyrene, full of proud and boastful valour, who could not stoop to the indignity of fighting on foot, but were very glad to beat the hastiest retreat on horseback, or who, "thrifty of their heroic souls, were prudently crouched in the hollow of the mountains," while the valiant deacon Faustus, coming forth from the celebration of mass at the head of the priests and the peasants, fell on the rascally plunderers, laid them prostrate with blows of huge stones, and proved conclusively to all cowards "that the barbarians were neither gods nor sons of gods any more than ourselves, but mere men of flesh and bone." Now the young senator, not yet a bishop, is depicted riding across country at peep of day in pursuit of the marauders, whom he will not dignify with so lofty a title as *the enemy*; now he deplores his want of two-edged swords, which are not manufactured in Cyrene, and for which he must substitute scimitars and lances, and good maces, which are certainly attainable, for "there are here plenty of the finest wild olive trees." Apparently the weapons, such as they were, proved in the hands of Synesius not less efficacious than the primitive war-tools of the deacon Faustus, for soon he has nothing more serious to write about than the indifferent health of his brother, or the bad qualities of an Athenian slave, a drunken buffoon—"a true slave, that is to say, a rascal"—whom Synesius meant to punish for his incurable vices, by setting him free and restoring him to the land which had reared him. Synesius inherited many slaves and bequeathed few; a bad slave, he considered, was not worth keeping; it was a providential blessing when such an one ran away; a good one deserved his freedom.

The note of battle is sounded clearly in letters addressed to Olympius, a friend from Alexandria; he, wishing to send an acceptable gift to his correspondent at Cyrene, then in much peril from the irrepressible barbarians, is bidden to

send such presents as befit a time of war; "good bows and good arrows of good styrax wood—especially arrows; for the Egyptian arrow, made of knotty wood and ill-smoothed, flies feebly, like a racer who stumbles at the outset; your arrows, round, smooth, well-turned, fly as a shaft should. Send me then arrows, and plenty of reins, which I shall surely want for the Italian steed you describe so well." The barbarians having been driven off for a season—alas, only for a season, for how could the vultures be kept from gathering round that portentous body of death, the Roman empire?—Synesius could write at greater length, though hardly with greater glee, and entertained his friend Olympius with very different themes, setting forth the joys of his rustic life in Cyrenaica, a blissful country according to him, and peopled by simple honest folks, who had never beheld the sea or tasted its salt, being, however, well supplied with "excellent fossil salt." These shepherds and huntsmen declined to believe that the ocean could supply food; they shuddered at the sight of fish-bones, which they deemed the remains of serpents, and as such very venomous; and their wisest elders pertinently asked how it could be that salt water should produce eatable food when the fresh sweet waters of their own well-springs bred only leeches and frogs? "Who could be surprised at their ignorance? 'Never did the sea break in on their slumbers.' They are waked by the rustic sounds of their stables, horses, goats, sheep, cattle, all neighing, bleating, lowing—delightful harmony to the master's ear. The sun rises; new music; the industrious bee begins its toil and its song. Innocent and secret life, far from towns and highways, far from trade and fraud! the fields are the Olympus of the wise man, and I wish for no other; here I philosophise at peace and at ease. As for thinking of evil, have I leisure for it? Our toils, our sports, are all in common. Work precedes pleasure; neither man nor beast eats till he has earned it by his labour."

Then the "philosopher" dwells upon the wealth of a country whose fruit, honey, milk and oil he maintains to be the best and most abundant in the world: "we are the spoilt children of nature," says he with simple pride; and above all, how rich is this country in game, what a heaven for the sportsman! and the hunter himself is the noblest being in the world; what a fault in the divine Homer, not to have sung his praise! Even the rural music of Cyrene

has its characteristic excellence, it is racy of the soil: "we have our own lyre, a true shepherd's lyre, simple, sonorous, masculine; Plato would have deemed it fit for the education of children in his ideal state:" it is unsuited for languishing love-songs; the shepherds sing to it the praises of the kingly ram, the heroic hound, the daring hunter; the flock and the vineyard have their share in the song; and the same instrument is found well adapted to the simple praise and prayer of this pastoral people. As for the emperor and his favourites, no one concerns himself about them, nor about the court, that playground of faithless fortune: it is known that there is an emperor, the tax-gatherer keeps that fact in remembrance; but many suppose that we are still governed by Agamemnon, who is a great warrior, and a good fellow, take him altogether. Agamemnon is with them the generic name of all emperors; it is a dim remembrance of childish years. Others tell the tale of Polyphemus and Ulysses as a thing that happened last year; Ulysses, they say, is a clever bald-headed little fellow, a friend of the Emperor Agamemnon's. "Adorable rusticity! What good old days were the days of Noah!"

Such is the picture which Synesius draws of his life as a country gentleman, and of the good neighbours among whom he reigned as a shepherd king, before the grievous burden of the episcopate was bound on his unwilling shoulders. The sombre pages of later years are not lightened by such joyous descriptions. Oddly enough, the most humorous passages are to be found in the official letters addressed to Theophilus, the formidable patriarch, giving circumstantial accounts of the experiences of Synesius as Metropolitan of Ptolemais. The churches of Cyrenaica still retained the primitive liberty of electing their own bishops, subject to the approval of the Alexandrian Patriarch; the Bishop Metropolitan who ruled in Ptolemais could not give preferment to whom he would. The churches of Palaebisca-Hydrax, which formed but one bishopric, had, however, so far exceeded their privileges as to be deemed guilty of alarming irregularities. Their late bishop, Siderios, a valiant soldier, a friend of Athanasius, had been chosen and installed in very uncanonical fashion. The people, weary of the age and helplessness of Orion, the legal shepherd of their souls, had simply set him aside, and put a vigorous young member of the church militant in his place. At the death of Siderios, his flock elected

and enthroned a certain well-beloved Paul, and in his election showed themselves equally reckless of ecclesiastical law. Synesius, acting under the orders of Theophilus, convoked a meeting of the erring churches and bade them proceed to a new and legal election. They would do nothing of the kind; they were well pleased with Paul. In two successive meetings they clamoured and wept with true African impetuosity—men, women, and children falling prostrate at the feet of the bewildered bishop, sobbing and shrieking: "Leave us our father, our son, our brother!" while the mothers held up their babes to add their wailings to the general tumult, and with shut eyes and averted heads declined to look on the vacant episcopal throne. Synesius, gentle and soft-hearted, and thoroughly perplexed, yielded to their pleadings, and undertook to transmit to the patriarch their petition, that their beloved pastor might be confirmed in his power. "This youth," he says, "must be skilful, or else God shows him grace; for 'tis a marvel how he rules their souls, how he has enchanted them, how none can live without him. Listen then; God made you gentle; a word from you will satisfy this people." Whether the petition was accepted we know not: Synesius, as a faithful witness, had to relate some things not entirely favourable to Paul. Dioscoros and Paul, both bishops, are engaged in a painfully absurd dispute; yet they are not worse than their predecessors, who began the contest. The question is to whom belongs the right of ownership in a half-ruined fort near Hydrax. Dioscoros, believing himself the lawful proprietor, had wished to utilise the old fortification as a defence against the rising tide of barbarian invasion. Paul forbade him, claiming the ruin as sacred ground, as a church, as *his* church—consecrated by secret devotions during the Arian persecutions, doubly consecrated by himself who had traversed its whole length, bearing a portable altar which he erected at the extremity with suitable ceremonies; and he claimed as church property all the ground he had thus trodden. Synesius made vigorous protest against this claim, which he described as superstitious and unjust, only worthy of a sacrilegious madman. "Nothing," says he, "is sacred for me which is unjust; thus I have no fear of their pretended consecration. What! shall the God of the Christians obey our ceremonies, our signs and prayers, as a puppet obeys the string? . . . But you blaspheme Him!" Evidence

was given by the elders which plainly showed that the usurpation lay with Paul; and the absurd contention was ended by the Christian self-denial of Dioscoros, overcoming by mere generosity the petulance of the young bishop, who became possessed of the fortress and its site in equitable fashion; for refusing them as a gift, he was allowed to buy them at his own price. "What he wished, that he had; the hill and everything else, rich vineyards and rich oliveyards. What remained to Dioscoros? His greatness of soul, and the honour of the peace, adorable relics; charity *is* the Gospel." So ends the story of this singular quarrel between two brothers in Christ, so curious for the glimpse it affords of the duties and temptations, the heroisms and superstitions of the great bygone African Church, whose errors, such as they were, had to endure the punishment of a great destruction; the Christianity of Northern Africa is almost as if it had never been. It would seem that Synesius was by no means the only bishop who could act as general in times of peril to his flock. Few letters dating from his episcopate are so cheerful in tone as this report of the affairs of Palaebisca-Hydrax. The shadow of his fate can already be discerned falling on him even in the year 409, while he was striving to avoid the bishop's robe.

In that year we find him expending all his eloquence in the attempt to bring a suspected murderer to confession. John, a former friend, who had often profited by the good offices of Synesius, was accused of having procured the murder of a certain Æmylius. We are told little of the criminal but his crime, nothing of the victim but his fate. It is evident that Synesius had not much doubt of his friend's complicity in the murder. He urges him either to vindicate his good name if innocent, or, if guilty, to purify his own soul, to appease the wrathful ghost of Æmylius, and to forestall the vengeance of God, by surrendering himself to justice. "They say," he writes, "and my simplicity believes it, that in the invisible world criminals are at the mercy of their victims, and that at *their* will the sufferings of the guilty are shortened or prolonged"—a singular belief, telling plainly that the idea of an expiatory state was already forming. "Do you wish that the soul of Æmylius may be mild and merciful to you? Anticipate him; do justice on yourself.... I pity the criminal who takes root and flourishes in crime; unhappy man! he has no friends, not even an adviser; God and

man have forsaken him. Think of it; if impunity is the worst of evils, expiation is the best of blessings. . . . You may escape the 'justice' of men; you will not escape the justice of God. His all-seeing eye shone over Libya, over the deadly gorge, over the murderers and the victim; what was done, what was said then, he knows. Are your hands and your soul clean? that is enough for God; not for men; you are suspected, and will be held guilty if you do not clear yourself. No, I should not dare to press your hand, to sit at your table; I should fear the spirit of Æmylius; perhaps I should be stained by your contact. Alas! am I so pure that I have need of further stains?" Wretched indeed was the state of society when the friend of a Synesius could give orders for an assassination, and when the ministers of justice were helpless to punish a lordly criminal; but in the pleader who deplores the fate of an unpunished sinner, how easy it is to recognise a brother soul to that of the English Kingsley, who regarded the being let alone in iniquity as the heaviest doom which the wrath of God could inflict on mortal man. The offender in this case chose a middle course: neither owning his guilt nor proving his innocence, he withdrew into a monastery, there to fast and pray out the remnant of his ruined life; and his soiled name disappears from the correspondence.

Darker than the pages which tell this tale of blood are those blackened by the sinister shadow of Andronicus of Berenice, Prefect of Libya. This man, a Libyan himself, was therefore by Roman law ineligible to govern Libya; he was already hated heartily by his countrymen; yet he succeeded in obtaining the office of prefect, A.D. 409, and at once made use of his illegal power to punish his private enemies. "Send us," Synesius pleaded to a powerful Byzantine friend, "send us prefects according to law, men we don't know from Adam, absolute strangers; but let them be men of sense and integrity, without passion or prejudice. It is piteous to see how things go on. . . . What evils have come on us! meals suspected, spied on; the lives of citizens at the mercy of women; informers encouraged; he who abstains from denouncing others is sometimes accused himself, is condemned always." The personal foes of the new governor had thus good cause to lament his accession to power, but they did not suffer alone. Andronicus showed great powers of invention in devising instruments of torture. The innocent Pentapolis

had no workmen skilled in such manufactures; but the prefect himself trained and instructed the smiths who executed his designs, and his array of monstrous engines was employed to extract money from the hapless rich; the possession of wealth became as criminal in Libya as it had ever been in the worst days of Rome. Synesius had been plunged in grief by the death of his best-beloved son, which happened on the very day that the father assumed the priestly office; this calamity, he says, had been predicted to him, but the fulfilment of the prophecy overwhelmed him, and he longed for death to reunite him with his lost child. But these sorrowful dreams were dispelled, and the stricken man sprang up again, an eager combatant, when he learned in what "cold blooded orgies of slaughter" the new prefect was revelling. His own rank as bishop placed in his hands spiritual weapons which were then truly formidable; and when his patience was exhausted by the insolent demeanour of his enemy, he did not scruple to launch against him the thunders of the Church.

Not the least singular document before us is the formal excommunication which Synesius levelled against Andronicus. This letter, addressed to the bishops of Cyrenaica, after reciting with eloquent wrath the iniquities of the offender, who is the last plague of the Pentapolis—"worse than the earthquakes, worse than the locusts, worse than famine, fire, and slaughter"—sets forth as the climax of his sins a strange offence indeed, which is deemed equivalent to a new crucifixion of the Saviour. The prefect had issued an edict denying the right of sanctuary to those whom he pursued, threatening the priesthood if they should admit his foes to seek refuge at "the inviolable altars;" and this edict was nailed openly on the church doors. Therefore the bishop declared that no temple of God, no holy place whatever, should be opened to such a blasphemer or to his supporters; "there is no place," says he, "for the devil in paradise; if he slips in, let him be driven forth." It is a noteworthy sign of the temper of the times that this breach of ecclesiastical privilege appeared as the one unpardonable sin to so liberal-minded a priest, and one so newly invested, as the philosopher Synesius. With satisfaction we find, however, that the single-minded prelate, the champion of the oppressed, was the victor in what might have seemed so unequal a war; and we can forgive the early Church its possession of

terrible and perilous power, when we see it so righteously wielded as to form the best refuge for the victims of a corrupt and cruel government. Synesius conquered; and, merciful in victory, we find him in the following year extending his hand to rescue Andronicus from an otherwise certain destruction, and pleading with the patriarch on his behalf. "If it pleases your piety to take care of him," he writes to Theophilus, "I shall believe that God does not hate him." The fallen prefect is not the only foe of our bishop that disappears from the pages of his correspondence in this fashion—ruined by his own crimes, and owing his safety to the man who had withstood him to his face in his days of insolent prosperity.

A valiant and merciful soul was that of this noble man, who lived and toiled and went to his reward fourteen hundred years ago, in days when the Church and the State seemed both struggling hard for existence, and both seemed almost equal heirs of guilt and glory. But the Divinely-founded system alone had strength to overlive its sins and sorrows, and to prevail. The life we have now been considering, so greatly ennobled by its real though imperfect Christianity, might itself be quoted in triumphant proof of the redeeming power of the Gospel. The four years covered by the career of Synesius as priest and bishop are not only the saddest, but the noblest portion of his earthly existence. Always eager to serve others, always ardent and daring, his courage becomes heroism, his zeal attains sublimity, when enlisted in the defence of the poor and suffering flock of Christ. Admired by his own circle as a graceful versifier and as an accomplished adept in that mystical philosophy which Hypatia expounded in her lecture-rooms, and which a select group of favoured devotees drank from the lips of their beautiful priestess in the sacred privacy of her own saloons, it was doubtless by his poems and his purely literary work that Synesius hoped to win his own modest share of deathless fame. That he would be known and loved in distant ages and under alien skies, not for his well-elaborated verses, not for his ornate discourses, but for the careless letters addressed to friends and kinsfolk; that the poet, the philosopher, the orator, would have passed into oblivion, were it not for the sweet and sunny character of the man, who, such is mortal blindness, was half ashamed of his warm humanity, and would fain have hidden it under the icy mask of stoicism; this irony

of fate, we may be sure, had no place in his young dreams. His heart was too tender for those iron days. As we read his eloquent wailings over his lost children, we can almost see some reason in the stern teaching which ruled that the leaders of the Church ought to be men untrammelled with domestic ties. The gentle bishop, on the death of his third and last son, talked stoicism, but felt despair. He built a monastery, and perhaps dreamed of himself retiring into it. But the heartsick fancy, if entertained, was not realised; for the hand of death, restoring him to his vanished joys, also took him away from the evil to come, and hid from his eyes the monstrous crime which was to disgrace Alexandrian Christianity in the unpunished, unrepented murder of his friend Hypatia. Such was the pity of Heaven to one who had himself abounded in pity.

ART. IV.—1. *The Modern Review*, Vol. III., Nos. 11 and 12 (Article: "Justin's Use of the Fourth Gospel," by DR. EDWIN A. ABBOTT). London: James Clarke and Co. 1882.

2. *The Authorship of the Fourth Gospel: External Evidences.* By EZRA ABBOT, D.D., LL.D. London: Trübner and Co. 1882.

3. *The Encyclopædia Britannica.* Ninth Edition. Volume X. (Article: "Gospels.") Edinburgh: Adam and Charles Black.

4. *S. Justini Philosophi et Martyris Opera.* Recensuit Joann. Carol. Theod. Otto. Jenae. 1876.

5. *Philonis Judæi Opera Omnia.* Ed. M. Car. Em. Richter. Lipsiæ. 1828—1830.

EVER since the writings of the Fathers have been searched to gather the evidence derivable from them to the genuineness and authenticity of the Gospels, one of the most difficult and controverted points has been the relation of Justin Martyr to our present Gospel according to St. John. The position of Justin, where the trickling rill of uninspired Christian literature begins to assume the proportions of a full stream, the frequency and certainty of his quotations from the Synoptists, his ample opportunities of investigation, his personal character and culture, all lend an importance to his evidence not easy to over-estimate. On the other hand, his references to *St. John* are at best comparatively few; with one disputed exception, they are allusions rather than quotations; and it is alleged that the Fourth is not cited in the same manner as the other three Gospels. Usually, the issue raised has been the direct one, whether or no Justin was acquainted with and used the Fourth Gospel. The literature of the subject, in monograph or otherwise, is by no means scanty, nor is it deficient in scholarship and ability. It is perhaps safe to say that the general conclusion is favourable to Justin's knowledge of *St. John*, although considerable allowance must be made for insoluble perplexities. Still, the Christian apologist had not, on the whole, reason to be dissatisfied with the discussion.

Very recently, however, Dr. Abbott has issued a fresh challenge to "theologians" on this matter. In his article

"Gospels" in the *Encyclopædia Britannica* he contends, as we have noticed before,* that if Justin "knew of the existence of the Fourth Gospel as a document he did not believe it to be the work of the Apostle John." That contention we should have traversed in its natural place in the article mentioned in our footnote, but at the date of writing Dr. Abbott had not completed his restatement of his case in the *Modern Review*.† This rather lengthy essay now lies before us. Practically, it maintains the ground taken up in the *Encyclopædia*, though with a slight but perceptible difference of tone that seems to indicate increased doubt as to the tenability of the notion that Justin was ignorant of "the spiritual gospel."‡ Probably it would not have been written but for the publication of Dr. Ezra Abbot's *Authorship of the Fourth Gospel*. It formally examines the passages adduced by Dr. Abbot "and the inferences derived from them." With the help of Credner and others, the American theologian has collected every adducible reference to the "Fouth Gospel" in the admittedly genuine works of Justin Martyr. We may accept the passages agreed upon by the two doctors, especially as after a somewhat careful examination, we believe they are all that can fairly be produced, unless, indeed, we bring into the argument Justin's doctrine of the Resurrection.

Dr. Abbott endeavours to substantiate the alternative proposition that "he [Justin] either did not know it [the Fourth Gospel], or did not accept it as authoritative." No objection can lie against the maintenance of a double hypothesis provided that both its branches are kept in mind throughout the argumentation, that an agile debater does not leap nimbly from arm to arm in order to avoid meeting the reasonings of his adversaries. It would be palpably unjust to accuse Dr. Abbott of performing this feat of intellectual gymnastics; but he does seem sometimes to be less than fully conscious of the temptation to

* See this REVIEW for October, 1882: Article, "The Latest Assault on the Fourth Gospel."

† Complaint has been made of our characterising the *Modern Review* as "an avowedly Unitarian organ." Most of its contributors are Unitarians, but it claims to be "not sectarian." We intended to indicate its doctrinal, not its denominational, position.

‡ The case might be put more strongly. In his final summary Dr. Abbott states that Justin "knew of the existence of the Gospel, or parts of the Gospel, in some form" (*Modern Review*, Vol. III. p. 754). Portious of his argument, however, do not agree precisely with this finding, as we shall see in due course.

which his bi-frontal contention exposes him. In all fairness the twin hypotheses should mean and should be held rigorously to mean—the evidence of Justin's use of the Fourth Gospel is insufficient, but if it is deemed sufficient it shows he did not ascribe the same authority to this Gospel that he did to the other three. We presume that it is exactly this that Dr. Abbott seeks to demonstrate, but unfortunately he permits himself to incline now to one side of his hypothesis, now to the other, as though the two were not mutually exclusive. Possibly this licence affects only the form of the argument; nevertheless it irritates the reader and makes clear certainty as to the designed bearing of some of the author's pleas rather difficult to obtain. Perhaps the explanation of the phenomenon may be sought in the growing conviction of Justin's indebtedness to Johannine traditions now embodied in the Fourth Gospel.

These "Ephesian" traditions play a very prominent part in both the *Encyclopædia* and the *Review* discussions of Justin Martyr's relation to our present Gospel according to St. John. They account for one moiety of Justin's apparent references to the Fourth Gospel. The other moiety Philo is made responsible for. Their writer evidently considers that the peculiar strengh of his *Review* papers inheres in their exposition of these Philonian resemblances.*

Before weighing the evidence in favour of Justin's knowledge of the last Gospel as a written document, it is necessary to look at a preliminary objection urged with confidence and curtness: "How comes it that Justin quotes Matthew about fifty times and the Fourth Gospel once or not at all?" Certainly, this question has at first an awkward sound, especially when asked without allusion to possible answers. Replies at any rate worthy of notice have been often offered: for example, that the scope and character of Justin's acknowledged works explain, to a great extent, his preference for quotations from the Synoptic Gospels. To show that the apologist treated of subjects concerning which passages from the Fourth

* He regards the great defect of Professor Drummond's able articles on "Justin Martyr and the Fourth Gospel" to be, that they do not take into account sufficiently the correspondences between Justin Martyr and Philo. We shall have frequent occasion to refer to Mr. Drummond. His articles appeared in the *Theological Review*, now "out of print," and not easily procurable. We are indebted for the sight of them to the kindness of Mr. E. S. Williams, senior partner in the firm of Williams and Norgate.

Gospel would have been exceedingly apposite, is quite an insufficient retort. Appealing to the heathen, he may have thought it wise to employ only those "Memoirs of the Apostles" which were easiest for them to consult; and the Synoptists, from their very age, possessed this quality. Arguing with a Jew, he might well avoid that Gospel which represented his opponent's fellow-countrymen in the most unfavourable light. There is nothing unreasonable in supposing—indeed there is much to recommend the conjecture—that for some time St. John's Gospel was confined within the limits of the Church. We may pass by other methods of accounting for Justin's comparative disuse of *St. John*, but there is one for which we must spare a little space, as we submit that, in its entirety, due weight is not always allowed it.

Justin Martyr's quotation and non-quotation of the Gospels present perplexities which baffle the most patient and skilful investigators. If all his works were extant, the difficulties would probably be lessened, might even disappear; at least the argument from silence loses force, *pro tanto*, because we can listen to but a portion of his utterances.* That portion abounds in references to the Synoptists, and to the fulfilment of prophecy, yet our Lord's predictions of the destruction of Jerusalem are not mentioned—a perfectly inexplicable omission. Beyond all dispute Justin had read and acknowledged the authority of the Pauline Epistles; yet he never mentions St. Paul's name, and his references to the Epistles are mere passing allusions of much the same character as some of those to the Fourth Gospel. He, *totidem verbis*, mentions the Apocalypse as the work of John, but makes no other use of the book, not even of Rev. xix. 13. His very citations from the Synoptists proceed upon no ascertainable principle: they are frequently complicated and inaccurate, and obviously from memory. Some scholars have adopted the

* On the other hand, if we could claim as his all the extant writings which bear his name, we could adduce more conclusive evidence of his acquaintance with St. John's Gospel. We may cede the *Epistle to Diognetus* without the most gentle protest; but it is far from certain that the *Hortatory Address to the Greeks* and the *Fragment on the Resurrection* are wrongly attributed to him. We must confine ourselves strictly to our subject, the relation of Justin to the Fourth Gospel, else we might point out that these possibly spurious works of Justin furnish evidence of the reception of that Gospel by orthodox Christians, at a date contemporaneous with or prior to Justin. Dr. Abbott refers to the *Cohortatio* when he thinks it favourable to his positions.

hypothesis that he used a *Harmony*, now lost, to account for their puzzling phenomena; others reject it as improbable and unhelpful; but almost all admit that every theory yet advanced fails to meet some essential element in the problem. Let us accept, for a moment, the hypothesis of a *Synoptical Harmony*,* and it is at once likely, particularly in view of the physical difficulty of frequent consultation of cumbersome manuscripts, the shape of which precluded the easy finding of individual passages, that Justin would, by preference, employ a handbook familiar to him. If, however, the hypothesis of a *Harmony* be deemed unsound, there are still features in Justin's quotations which make the rough-and-ready comparison of his *fifty* from St. Matthew to his *one* from St. John, not merely unfair, but positively misleading Of course this does not go to show that the Apologist did use the Fourth Gospel, but only to reduce to its natural proportions a hugely exaggerated preliminary difficulty.

Justin's doctrine of the Logos constitutes one of the principal grounds on which his employment of *St. John* is asserted. The argument divides itself into two distinct though kindred pleas—Justin represents a later stage in the development of the doctrine than St. John; general and verbal resemblances on this subject exist between Justin and St. John. On the first head, and the inferences to be drawn from it, Professor Drummond says:

"When we remember that Justin's doctrine of the Logos is a developed form of the Johannine, that it harmonises the Johannine doctrine with that of the Synoptics, that this harmonising is the only feature which it adds to the Johannine, that it probably rested upon the authority of some evangelical source, and that this source probably did not contain an account of the miraculous birth, and further that we have no reason to believe that such a source ever existed except the fourth Gospel, we can hardly help concluding that Justin must have been acquainted with that Gospel, and relied upon it as a basis for Christian doctrines."†

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* The notion of a *Harmony* would seem to solve more internal difficulties than any other, at least this is the conviction that grows upon us the more closely we scrutinise Justin's quotations from the Synoptists. But the external objections are serious, *e.g.*, no trace of such a *Harmony* remains, and Justin's purpose would have been defeated if he had employed a private compilation of his own. He must have used books acknowledged by the Church, and accessible to the heathen.

† *Theological Review*, Vol. XIV. p. 183.

Dr. Abbott roundly declares, "it can be demonstrated that Justin's whole theory of the Logos is not so developed as that of the Gospel." * He does not notice Professor Drummond's point about the miraculous conception, though the occupant of his critical position cannot deny its force. Indeed, from our own standpoint, we may avail ourselves of the plea with a slight alteration in the putting of it. At a date posterior to Justin, the Church could not have accepted a Gospel which spoke of the Logos becoming flesh, and omitted all reference to the miraculous conception, unless its apostolic authority were well guaranteed; or, which is much the same in the circumstances, an impostor's first care would have been to guard his forgery from the possibility of the charge that it fell short of the received theology. The question whether Justin Martyr or St. John presents the later stage in the history of the doctrine of the Logos, has been very fully discussed, principally by German scholars.† The decision depends so largely upon the individual critical faculty, that every upholder of an opinion upon the subject inclines to pronounce those who disagree with him destitute of that prized commodity. Confident appeals to the true critical spirit bear an unfortunate resemblance to dogmatic assertions, but in this matter no superior judge sits to whom appeal can be made. No candid student of the phenomena set forth by Dr. Abbott, for example, can doubt that Justin Martyr wrote under strong Alexandrine influence. Speaking generally, so far as this influence operated, his doctrine of the Logos was less true than St. John's, and historically earlier. It would seem to be forgotten by both parties to the controversy that this can be admitted without involving Justin's priority in time before St. John's Gospel. There is nothing intrinsically improbable in the idea that the philosopher deliberately attempted to reconcile Christian with philosophic teaching, and therefore added to St. John's doctrine principles derived from Philo, and even clothed Johannine thoughts in Philonian words. Indisputably the two Apologies and the Dialogue with Tryphon contain doc-

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* *Modern Review*, Vol. III. p. 567.

† It is a pity that most of the works referred to remain untranslated into English, so far as we know. A not quite satisfactory translation of *Semisch* appeared in the *Biblical Cabinet*, the forerunner of Clark's *Foreign Theological Library*. But *Credner* (who is indispensable), *Hilgenfeld*, *Engelhardt*, &c., possess, we believe, no English version.

trines which, in the absence of evidence to the contrary, it is natural to trace to the Fourth Gospel. But we cannot conceive that any sensitive, unprejudiced reader can help feeling that Justin presents them after the fashion of uninspired theology. His Logos-doctrine is more complex, more systematised, fuller of subtle distinctions, more openly metaphysical; in one word, more *Hellenistic* than St. John's. It is St. John's doctrine, with additions, after it has passed through the crucible of a philosophic, speculative mind. The philosopher's cloak, which Justin continued to wear after his conversion, symbolises his mental attitude. If this is accepted, we can appropriate the truth common to both theories of his doctrine in its relation to Philo Judæus and to St. John.

To this statement the reply, in effect, would be that Justin's doctrine of the Logos contains Philonian elements irreconcilable with his indebtedness to St. John. A formidable array of proofs is drawn up, but we may greatly reduce the test by the application of a single principle. Terms common to Philo and Justin count for nothing if they are derived from the Old Testament, or can be fairly understood in a Christian sense. The justice of this principle is obvious. If we maintained, as Dorner seems half inclined to do,* that between Justin and Philo little or no direct connection existed, these expressions would constitute a pertinent answer. The case is altogether different when we maintain only that no *such* connection existed as is incompatible with a closer connection with the Fourth Gospel. We may dismiss then from our present consideration appellations like Beginning, Angel, Eldest, Name of God, the Rock, Israel, &c. Nor need we now concern ourselves with the fact that Philo applies to the Logos, and Justin to Christ † the Septuagint version of Zechariah vi. 12, "Behold a Man, the East is His name." ‡ More weight may be allowed to other "strikingly

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* "Justin *may have been* acquainted with Philo's system."—*Doctrine of the Person of Christ*, Div. I. Vol. I. p. 459 (Clark's Translation). The italics are ours.

† It is worthy of notice that in each case Justin quotes this saying along with a number of other prophecies (*Dial.* CVI., CXXI., CXXVI.), and in connections in which no thought of the special Logos-doctrine could occur. It is applied to Jesus as Christ, not as Logos. The form of the quotation differs from Philo's—'Ιδοὺ ἄνθρωπος ᾧ ὄνομα ἀνατολή (*De Confus. Ling.*, 14) : 'Ιδοὺ ἀνήρ. ἀνατολὴ ὄνομα αὐτοῦ (Justin.)

‡ Dr. Abbott (*M. R.* III. 570) italicises the correspondence between Philo (*De Confus. Ling.*, 28), "he is called . . . . *the Man according to the*

similar" passages or phrases. To hear our Lord spoken of as a "Power," and "the First Power after God" (Dr. Abbott omits the two last words), grates upon modern sensibilities, and irresistibly reminds one of Gnostic heresies. But in the Dialogue with Tryphon (c. cxxviii.), the term is plainly an accommodation to what "some wish to say," is chosen as setting forth their views, and is guarded by the clear assertion of the distinct personality of the Logos. In the First Apology (c. xxxii.), the words "after God" might well appear to have been added so as to include God among the Powers; at least they bring the Logos, "who is also the Son," into more intimate relation with God than the naked phrase "First Power" would; and, writing to the heathen, Justin would avail himself of terms intelligible and familiar to them. If, again, Justin accounts for the wisdom and goodness that were in the world before the coming of Jesus by the assertion that the philosophic and pious had part of the Logos, but that Christ is "the entire Logos," we can, as Professor Drummond points out, scarcely help recalling John i. 9, 10; but we may excusably fail to see that the contrast and the phrase warrant the dictum, "Christ is, with him [Justin], the sum of all the Logos-Power that has been from the creation," and imagine that the sentence would be less incorrect if the words "the sum of" were left out. Nor does the position find more than a shadowy support in the application to the Incarnate Son of the term "the entire Logos-element," particularly, as Justin immediately subjoins "both body, and reason, and soul."* These instances must serve as specimens of a rather numerous class; but there are two or three passages which demand a more detailed consideration.

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image," and Justin (*Ad Græcos*, 38) "who . . . . took upon Himself *the Man according to the likeness and image of God.*" To say nothing of the doubtful authorship of the *Hortatory Address*, the translation might read "assuming (or 'having taken upon Himself') man, who had been made after the image and likeness of God," which certainly harmonises better with the context. The reference to the original constitution of man is natural, that to the ideal man forced. Besides, Dr. Abbott's rendering omits a word, which makes the reference to the ideal man almost impossible, "having been made" (*τὸν κατ' εἰκόνα καὶ ὁμοίωσιν θεοῦ πλασθέντα ἀναλαβὼν ἄνθρωπον*).

* *Διὰ τὸ λογικὸν τὸ ὅλον τὸν φανέντα δι' ἡμᾶς Χριστὸν γεγονέναι, καὶ σῶμα καὶ λόγον καὶ ψυχήν* (2 *Apol.* x.). We do not care to dispute Dr. Abbott's translation, but the Greek is obviously capable of two or three renderings. Manuscripts, innocent of ordinary capitals, do not mark too clearly the distinction between word and Word, reason and Logos.

The much-tormented sentence in which Justin seems to inculcate the worshipping of angels (1 *Apol.* vi.), may be put in this category, though little of value can be gathered from it. Dr. Abbott translates, "Both Him (God) and the Son who came from Him and taught us these things, and the host of other good angels that follow Him and are conformed to Him, and the Prophetic Spirit, we revere and worship;" and adds in a note, "No other translation seems reasonable, unless the text is to be altered." With this opinion we quite coincide, but the suggestion of an emended text indicates that the apparent meaning of the sentence cannot be the real one. The passage as it now stands contradicts too blankly other utterances of our apologist concerning the sole objects of Christian worship. We are thus left to choose the least of three evils, a violent rendering of the Greek, a conjecturally corrupt text, or a *lapsus pennæ* on the part of Justin. In any case, the passage disappears from the field of our inquiry; otherwise, we might argue that the conjunction of the Son with "other good angels," though unguarded, is not irreconcilable with Biblical doctrine and the full acknowledgment of His proper Divinity.

Another passage is alleged to speak of the Logos as "in the act of being generated at the time when God made all things." It will be necessary to have the whole passage before us: "But His Son, who alone is rightly called Son, the Logos, who before the works was both with [God] and begotten, when in the beginning through Him He [God] created and arranged all things is called Christ, because of His being anointed and God having arranged all things through Him" (2 *Apol.* vi.).* Justin held the personal pre-existence of the Logos, unless, indeed, it is contradicted here (*cf.* also *Dial.* c. lxii), on which supposition he is guilty of gross inconsistency. Common fairness, therefore, entitles any reasonable interpretation to the preference that places this sentence *en rapport* with Justin's known convictions. Dorner proposes the change of a single letter, to read *ὅτι* for *ὅτε* ("*because* in the beginning, &c."). The alteration is simple and ingenious, but it is arbitrary and unnecessary. Moreover it renders the words tautological to the verge of inanity. Dr. Donaldson disjoins the disputed

* Ὁ δὲ υἱὸς ἐκείνου, ὁ μόνος λεγόμενος κυρίως υἱὸς, ὁ λόγος πρὸ τῶν ποιημάτων καὶ συνὼν καὶ γεννώμενος, ὅτε τὴν ἀρχὴν δι' αὐτοῦ πάντα ἔκτισε καὶ ἐκόσμησε, Χριστὸς μὲν κατὰ τὸ κεχρίσθαι καὶ κοσμῆσαι τὰ πάντα δι' αὐτοῦ τὸν θεὸν λέγεται.

clause from the words before it, and attaches it to those that succeed it ("when in the beginning through Him God created and arranged all things [He] is called Christ"), so as to declare the time not of the begetting but of the designating the Logos Christ. Professor Drummond adopts this solution, adding "the only objection that occurs to me lies in the use of the present λέγεται after the aorists ἔκτισε and ἐκόσμησε; but this may perhaps be sufficiently explained by the permanence of the title, and by the want of literary finish in Justin's style." A more serious, but not a fatal objection, is the lack of authority for dating the conferring the name *Christ* upon the Son at the creation, though the apologist may have been influenced unconsciously by Rev. xiii. 8, "the Lamb that hath been slain from the foundation of the world." We venture to submit a fresh exegesis. Semisch sees an intentional contrast in "was with," and "was begotten" (συνὼν καὶ γεννώμενος); may they not rather be in intentional parallelism? The thought of the eternal generation of the Son could not be strange to Justin. The Son *was conversing with* God *before the works*, and *was* (still) *in the act of being generated when God through Him in the beginning created all that is.* Understood in this way, the temporal clause ("when, &c.") has a reason for its existence. To assert that the Son was with God *before* the works, that He was being begotten *when* the works were made, and that God created the works *through* Him, constitutes a triple contradiction. To say that the Son pre-existed only as an attribute of God, removes one element of the contradiction, but raises new difficulties, *e.g.*, that συνὼν cannot apply to an attribute, that the Logos did not become Son until after He was begotten, &c. Everything becomes clear if Justin meant to indicate that Christ existed before the creation as Logos and Son, that by Him God made the worlds, that He was not begotten immediately prior to the creation and for its purpose (a doctrine closely related to Philo), but was in the act of being generated even while He (the Son) was the agent of the creation; the irresistible inference from the three propositions being that being generated is His eternal mode of existence. Thus interpreted, the passage harmonises precisely with Johannine teaching.*

* "From Thee, through an eternal now,
The Son, thine offspring, flowed;
An everlasting Father Thou,
An everlasting God."—Samuel Wesley, Junr.

Another small set of passages, supposed to militate against Justin's acquaintance with *St. John*, are those in which the instrumental dative is employed of Christ, Bishop Lightfoot having shown that the New Testament substitutes a preposition with the genitive (*δι' οὗ* for *ᾧ*), in order to mark that Christ's agency in creation was not that of a passive tool. Three quotations from Justin are given in which he uses the avoided mode of speech. The first comes from the Epistle to Diognetus, and is therefore irrelevant. The second reads, "If, then, we know that God has been revealed by Him" (*ἐκείνῳ*) (*Dial.*, c. lxxv.). Critical editors of the highest authority translate "God has revealed Himself" (*ἐκεῖνον* for *ἐκείνῳ*). We confess to a dislike of the emendation, though it does accord better with Justin's line of thought than the untouched text. The dative may be accepted without danger; for, firstly, Bishop Lightfoot's canon refers merely to "the mediatorial function of the Word in creation;" and, secondly, the context so imperatively binds the pronoun to its personal signification, that the apologist might deem the customary construction unnecessary, and prefer the shorter and simpler. The third instance (1 *Apol.*, lix.) says that "by the word of God (*λόγῳ θεοῦ*) was the whole world made." Dr. Abbott endorses Professor Drummond's opinion, that here "*Λόγῳ* is most probably used in its special sense," but draws an exactly opposite inference to the authority to whom he appeals. At any rate, however, it is admissible to write "word" without the initial capital; for doing this there are other than dogmatic reasons. Justin has just described creation as the result of the command of God, and quoted the first three verses of Genesis. He continues, "So . . . you also may perceive that by the word of God was the whole world made." If he had wished "word" to denote the Logos, would he not, to prevent misconception, as he frequently does, have added some qualifying epithet? At least it appears natural to understand word of the first quoted fiat, "Let there be light." This interpretation is the more likely when we call to mind Psalm xxxiii. 6 ("By the word of the Lord were the heavens made, &c.") which Justin very probably had in his memory.

Having rid ourselves of these preliminary difficulties, we may turn to the positive evidence of the dependence of Justin's doctrine of the Logos upon the Fourth Gospel.

We must content ourselves with a brief summary; our limits will not permit the discussion of Justin's Christology.

Fortunately a pretty general agreement exists as to the main features which differentiate Justin's doctrine of the Logos from Philo, and approximate it to St. John's. The principal matter in dispute relates solely to Philo's opinion, Justin's views on this point being abundantly clear. We do not propose to examine the knotty question, whether the Logos of Philo is a person or no. Any number of citations might be copied on either side of the question, each set of extracts decisive, if it were not for the counter-evidence of the other.* The strongest advocates of the hypostatic conception of Philo's Logos allow that the philosopher is "not always self-consistent." The importance of this admission cannot easily be over-estimated. An author may personify an attribute till he forgets that he is dealing with an intellectual creation; he can never etherealise a person till substantial existence is merged in the accident of another's being. At best, the Logos of Philo is, on the one hand, emanatistic, and, on the other, not easily distinguishable from the Divinely-ideal world. The Alexandrine Logos issued from the attempt to fuse into one idea the Hebrew wisdom, the Greek reason, and the wild imaginings of Oriental angelology. Certainly the New-Testament Word, if really present in the concept at all, occupied a very subordinate place. Out of this many-sided, heterogeneous, metaphysical idea, Justin has selected a single, simple thought. He divests it of all self-contradiction, he gives to it concrete form, he brings it from the cloud-land of dreamy, incoherent, philosophic speculation, and endues it with life and active force. Before the man who accomplished this Philo sinks into an intellectual dwarf; yet who can doubt that, measured by mental power, the relative position of the two writers is exactly the reverse of this? The inference may be left to the reader; but whatever that inference may be, he can scarcely fail to acknowledge that Justin's Logos differs from Philo's by that which it rejects, as well as by that which it contains.

Justin's doctrine of the Logos approaches to St. John's and recedes from Philo's in three chief particulars, besides

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* The question, however, must not be settled by piles of isolated passages and expressions. Philo's tone and general treatment can be caught only by consecutive reading.

the important set of distinctions we have just adverted to. Dr. Abbott states these candidly, although he does not perceive their full force as regards our present question. According to Philo, God's manifestations through the Logos were inferior to His revelations of Himself to the philosophic and contemplative; Justin believes that the highest revelations of God come to us through Christ. This divergence can be explained without direct recourse to the Fourth Gospel, though it is in closest harmony with it. Philo looked upon God as a pure, passionless being, to whom love would be as unworthy and impossible as malignant hate; Justin teaches God's infinite compassion towards, and deep and persistent interest in, the children of men; this compassion and interest he discovers most strongly in the gift of Jesus Christ, the Logos, to live and die on man's behalf. So diametrical an opposition of sentiment goes to show Justin's independence of Philo—*i.e.*, that he accepted only such of Philo's doctrines as he believed to be true, and that he had another test of truth than philosophic elegance or correctness. The Christian student, awake to finer shades of feeling, will probably find in Justin's entire treatment of the relation of God and Christ—God *in* Christ—to men evidence of the spiritual influence of the beloved disciple; but the controversial value of the argument is very small, as identical ideas are contained in the Synoptists. Thirdly and principally, the doctrine of the Incarnation separates between Justin and Philo. That the Word should become flesh would be, from the latter's standpoint, simply inconceivable, the mere notion could not, and did not dawn upon the Alexandrine Jew, who regarded all contact with matter as degradation; to him the embodiment of the supreme Deity, if he had heard of such a thought, would have been a speculation too absurd to be discussed, and too blasphemous to be entertained. Undoubtedly, Justin acknowledged the proper Divinity of Jesus Christ. Undoubtedly, he taught that the Logos became man. Upon the first point we may shelter ourselves behind the authority of Professor Drummond, whose "broad" and "liberal" principles free him from all suspicion of prejudice in favour of ancient orthodoxy, who declares "it is evident that *θεός* is applied to Christ, not as a title of dignity, but as a description of His nature;" "it is abundantly proved that the Logos is regarded as a super-angelic, and, in the strictest sense, a

divine being."* The second point no one has ever disputed.† Justin, therefore, held the Christian doctrine of the Incarnation in its entirety. Here the gulf between him and Philo can be neither leaped nor bridged. And, to do them justice, those who deny Justin's acquaintance with St. John and magnify his debt to the Alexandrine philosopher do not attempt so perilous, so obviously impracticable a feat.

Nevertheless, the *Encyclopædia Britannica* endeavours to prove that the Logos-doctrine, as a whole, was borrowed from Philo. To the vast differences between the Alexandrine and the Christian teaching the answer is, "It was inevitable that when the Christians borrowed, they would adopt what was consistent, and discard what was inconsistent, with belief in the incarnation of Christ." This explanation, though not unreasonable in itself, accounts for but a part of the phenomena. *Given the identification of Jesus Christ with the Logos of Philo*, and the rest, for argument's sake, may be allowed to follow; but it is precisely this identification that, on the hypothesis that Justin's works preceded St. John's, requires an adequate cause of origin. Blot out the Fourth Gospel, and we must credit Justin Martyr with the identification, for he is the first uninspired author by whom the appellation Logos is assigned to Jesus of Nazareth. It is assumed by Dr. Abbott, and the school to which he belongs, that the identification was so palpable that it was made instinctively, and commended itself to the conscience of the Church by the bare declaration of the discovery. Compare the Christ of the Synoptists and the Logos of Philo, with its emanatistic conception, its doubtful personality, its metaphysical connotation, its host of incongruous designations, its distinct inferiority to God, the degradation of its contact with matter. Would not a Christian theologian

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* An example or two may be quoted. "He is called God, and He is and shall be God:" "who, as being Logos and firstborn of God, is also God:" "is God in that He is the first-begotten of all created things" (*Dial.* c. lviii.; 1 *Apol.*, c. lxiii; *Dial.*, c. cxxv.).

† Justin's phraseology is his own, though the doctrine is Johannean. Dr. Abbott lays stress upon the variety of Justin's terms to express the Incarnation, and his non-employment of the phrase in John i. 14. Yet are not complex and numerous forms *later* than simple and single? Like many Christian preachers and writers nowadays, Justin delights in new words to clothe an old truth. Were the framers of the clause in the Nicene Creed ignorant of John i. 14 and Luke ii. 15, because they expressed the mystery in the non-Scriptural words, "And was incarnate by the Holy Ghost of the Virgin Mary"?

—always supposing the Fourth Gospel not to exist—naturally incline to reject the notion altogether as a heathen corruption or a speculative invention of the philosopher? Would he dare to link Jesus Christ with the Logos of whom Philo had written? The man who could take this step must have been strongly convinced of the truth and importance of philosophy; nevertheless, without the faintest approach to an apology he cuts off from the Logos notion all (or, if you will, nearly all) that does not harmonise with the Christian creed. We will not press these considerations farther than to maintain that the transmuting of the Philonian into the Christian Logos demanded intellectual qualifications of a high order on the part of the originator and accomplisher of the process, and conscious mental effort on the part of those who accepted his results; and, further, that the Church, which, be it remembered, did not graft Gnosticism upon the stock of its doctrines, but condemned it as heresy, was not likely to receive the mysticism of Philo with open arms.

Here a fresh draft upon our credulity arrests us. The doctrine of the Logos was, *ex hypothesi*, the ingenious invention of a man or men who possessed no authority to impose it upon the Church, and claimed no inspiration to guarantee its verity. Not a trace of it appeared in the Gospels the Church acknowledged as authentic, nor in any considered apocryphal, yet this addition to the creed provoked no opposion, evoked no protests; nay, more marvellous still, it roused no chorus of acclamatory welcome, it was received as quietly and implicitly as though it had been found in one of the much cherished and carefully guarded memoirs of the apostles. In view of these facts, if no Fourth Gospel had been preserved, historical criticism might, in its soberest mood, postulate one containing something analogous to the preface to *St. John*, in order to account for the otherwise puzzling phenomena. The difficulty grows heavier as we ponder it. The internal evidence of Justin's style and method seems conclusive that he did not originate, or did not even make the first public announcement of the manifestation of the Logos in Jesus Christ. He assumes that the connection between the Logos and the Incarnate Saviour is indisputable and undisputed; he does not treat it as a fresh discovery, or even a truth to be supported by argument. He declares it as a universally recognised Christian tenet; from first to

last he treats it as established dogma. His manner is utterly inconsistent with any claim to originality in this particular, altogether inexplicable unless he based his statements upon unquestionable authority. There is no direction in which we can look for such an authority except to a Gospel or other apostolic source. If St. John had already applied the title Logos to Jesus Christ, we can understand a Christian philosopher availing himself of Philo's "felicitous language," and trying in this way to recommend his religion to the learned world. But if Justin did not employ the Fourth Gospel, not only did he make an unauthorised and groundless addition to the Christian creed with consummate show of innocence and right, he allied that creed to Alexandrine theosophy, obtrusively parading his obligations to Philo, yet professing exclusive adherence to the apostolic doctrine; and the Church either was deceived by or connived at his audacity. Volkmar's grotesque and exploded theory that the pseudo-John borrowed from Justin, exposes itself to these difficulties to no greater extent than the less courageous theory we are discussing.

Dr. Abbott does not deny the existence of some slight and vague connection between Justin Martyr and our present *St. John*. Both, he allows, embody kindred traditions; but Justin, he contends, clings more closely to Philo than the Fourth Gospel does. After exhibiting in his own fashion the apologist's doctrine of the incarnation, he continues:

"This is the full Christian development of Philo's doctrine, as applied to the 'First-born' becoming 'flesh:' but there is not only no evidence that Justin quotes from any written document exhibiting this development, but rather evidence to the contrary, that his doctrine of the Logos, though affected by the teaching of the Ephesian school, had not yet been imbued with it. For in speaking of baptism, he calls attention to the fact that, in that rite, God is mentioned only by the name of 'God the Father and Lord of the universe;' for, he continues, 'no man can utter the name of the ineffable God; and if any one dare to say that there is a name he is incurably mad' (*First Apology*, lxi.). Looked at in the light of the context, this word, ἄρρητος, 'ineffable' implies a conception of the revelation of God through Christ hardly reaching the level of the Ephesian doctrine, which teaches that though God had never been seen He had been *declared* by the only-begotten Son, so that whoso had seen Him had seen the

Father. But it is in harmony with what Justin says soon afterwards (*ib.* lxiii.), that Jesus is also called 'Angel and Apostle' (compare also Heb. iii. 1); and it harmonises well too with the doctrine of Philo, that 'no mortal thing could have been framed in the similitude of the supreme Father of the universe, but only after the pattern of the second Deity, who is the Word of the Supreme Being'" (*Solutions*, lxii.).

Perhaps it scarcely consists with literary courtesy to speak of the egregious unfairness of this paragraph from the *Encyclopædia*, but we may animadvert upon its imperfect apprehension of the conditions of the problem it seeks to solve, and its inattention to cogent evidence. In the first place, there is a superficial appearance of impartiality in scrutinising Justin's works for evidence of his use of a "written document exhibiting this development" and meanwhile obliterating the fact that a written document now exists which claims to have set forth the doctrine prior to the composition of Justin's earliest work. The paragraph confesses that Justin's doctrine was "affected by the Ephesian school," *i.e.*, that the same doctrine that Justin drew from a Christian source is enshrined in the document professing to have preceded him. Surely this is circumstantial evidence of the truth of the claim. "The teaching of the Ephesian school" affords but little help in explaining the immediate and widespread acknowledgment of the identification of the Logos with the historical Jesus, unless it were authoritative and recorded in a generally accessible form. Verbal and local instructions fail to meet the case, as we have already seen. And it is preposterously below the fact to say that Justin's doctrine of the doctrine of the Logos was *affected* by Johannean—for "Ephesian" is only a mild synonym for Johannean—teaching; it is permeated through and through with it, in substance if not in phrase. Let the amount of Johannean influence, however, remain undecided. We have nevertheless gained the important admission that Justin's Logos-doctrine manifests elements which cannot be ascribed to Philo or to the Synoptists, which can have issued only from the same quarter as that whence proceeded the last Gospel. But if the two Apologies and the Dialogue with Tryphon dated earlier than our present *St. John*, and if the Christian doctrine of the Logos were the peculiar property of "the Ephesian school," it is incredible that any writer of that school, who must have been acquainted with Justin's

works, should have said so little about the Logos, and that little so simply and plainly. Instead of confining the term *Logos* to a prologue of eighteen verses, he would have lost no opportunity of inculcating his doctrine, and would have been specially careful to employ the designation as frequently and as fully as Justin did. Again, the hypothesis of an unauthenticated unwritten tradition fails to satisfy imperative requirements.

The two objections brought in the paragraph on which we are commenting against the Johannine character of Justin's Logos-doctrine, furnish a specimen of the mischiefs arising from reliance upon isolated passages. Very probably Justin's use of the adjective "ineffable" may have come from Philo, but it is perfectly susceptible of a Christian sense, and reconcilable with St. John's statements. It is true that man cannot comprehend God, nor find Him out by searching. Justin means merely that God has no name perfectly descriptive of His Infinite Self. Writing to the heathen, he gives as the reason why the neophyte is baptised in the name of the Father rather than in a name analogous to Jupiter, Mercury, &c., that the true God must be immeasurably greater than any name which could be assigned to Him. The thought underlying his application of "ineffable" is set forth by Justin himself in a passage so remarkable that it is strange it has not attracted more notice. "But no name is assigned to the Father of all, since He is unbegotten. For he who is called by any name whatever has as his elder the person assigning the name. But Father and God and Creator and Lord and Master are not names, but appellations, derived from His good deeds and His works. But His Son . . . is called Christ, . . . this name itself possessing an unknown significance; as also the title God is not a name, but an opinion of a thing implanted in the nature of men that can scarcely be explained. But Jesus, His name as man and Saviour, has also significance" (2 *Apol.*, vi.) The opening contrast is between the Supreme God and the angels or demons who had beguiled men into worshipping them. Justin in effect apologises for affixing no name like "Neptune and Pluto" to the Deity he adored. As He was unbegotten, there was no one to name Him. The terms Father, &c., express His relations to men rather than His essential nature. In all this, if Justin errs, it is the philosophy that is in fault, not the theology. There is nothing inconsistent

with St. John's representation of the revelation of God through Christ. But the conclusive proof that Justin did not intend to place the Father at a vaster distance from men than the Fourth Gospel does is found in his allusion to the "unknown significance" of the name Christ, and his criticism of "the title God," which he repeatedly applies to Christ, and refers to Him even when he declares it is not a name.* And if Jesus is called Apostle, Heb. iii. 1 shows that that is no designation of inferiority. And as to the term angel, Dr. Abbott forgets Justin's words, "Who is called angel and is God."† The distinction could not be drawn more clearly or scripturally. We need not, therefore, point out that both epithets have their sanction in the Old Testament.

We submit that Justin's doctrine of the Logos not only harmonises with the Fourth Gospel, but implies the existence of that document and the apologist's knowledge of and deference to it.

From considerations of the doctrinal purport of Justin's writings, we must turn to the scrutiny of certain words, phrases, and thoughts declared and denied to have been educed from St. John's Gospel. The primary place belongs to Justin's citation of John iii. 3-5: "For Christ also said, Except ye be born again, ye shall certainly not enter into the kingdom of heaven. Now that it is impossible for those who have once been born to re-enter the wombs of them that bare them is manifest to all" (1 *Apol.*, 61).‡

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* That "the title God" refers to Christ follows not only from the immediate connection of it with Him, but from the inclusion of the term in the appellations of the Father of all, at the beginning of the passage. If it did not refer to Christ there would be no reason for its second mention.

† "*ἄγγελος καλούμενος καὶ Θεὸς ὑπάρχων*" (*Dial.*, c. lx. Cf. also *Dial.*, cl. 56, 57.)

‡ So much depends upon careful comparison of the originals that we subjoin them :

JUSTIN.

Ἂν μὴ ἀναγεννηθῆτε, οὐ μὴ εἰσέλθητε εἰς τὴν βασιλείαν τῶν οὐρανῶν. Ὅτι δὲ καὶ ἀδύνατον εἰς τὰς μήτρας τῶν τεκουσῶν τοὺς ἅπαξ γεννωμένους ἐμβῆναι, φανερὸν πᾶσίν ἐστι.

ST. JOHN.

Ἐὰν μή τις γεννηθῇ ἄνωθεν, οὐ δύναται ἰδεῖν τὴν βασιλείαν τοῦ θεοῦ λέγει πρὸ ςαὐτὸν ὁ Νικόδημος. Πῶς δ ύναται ἄνθρωπος γεννηθῆναι γέρων ὤν; μὴ δύναται εἰς τὴν κοιλίαν τῆς μητρὸς αὐτοῦ δεύτερον εἰσελθεῖν καὶ γεννηθῆναι; . . . . ἐὰν μὴ τιςμεννηθῇ ἐξ ὕδατος καὶ πνεύματος οὐ δύναται εἰσελθεῖν εἰς τὴν βασιλείαν τοῦ θεοῦ . . . . δεῖ ὑμας γεννηθῆναι ἄνωθεν.

The connection of this passage with the corresponding one in the Fourth Gospel is indisputable. Dr. Abbott confesses, "the similarity is obvious, and the hypothesis of accidental coincidence absurd." This admission is followed by an elaborate attempt to show that the first part of the apparent quotation is "borrowed from a tradition embodied differently in the Fourth Gospel;" and that the second is Justin's own comment upon his text. The pleas assigned for the traditional origin amount to these: the preface "Christ said," which is not Justin's ordinary form of reference to the Gospels; the omission of the words "of water and spirit," the insertion of which would have vastly improved Justin's reasoning; the large number of different forms in which the text is found in the Fathers, &c.; and a theory of the development and manipulation of this and similar supposed sayings of our Lord. The questions raised by the occurrence of this celebrated passage in the First Apology have been discussed frequently and fully; we shall dwell therefore very cursorily upon them, except as more or less novel points have been raised by Dr. Abbott.

The introduction "Christ said" or "Jesus Christ said" is used admittedly of both apocryphal and apostolic utterances. No inference can be drawn from its employment in this case, not even the precarious one that the saying was derived from tradition, if not from the Fourth Gospel, if by "tradition" verbal tradition is meant; it may have come from a written non-canonical evangel. The numerous variations with which the Fathers cite these words are supposed to indicate that they did not exist in any fixed, authoritative form, but only in a floating, easily modified tradition. Dr. Ezra Abbot* has put the validity of this argument to a searching test. He shows that each of the variations occurs repeatedly in writers who acknowledged the authority of all four Gospels, and points out that one of the most striking—"Except *ye*" for "except *a man* be born anew"—"is made by *the speaker himself in the Gospel*, in professedly repeating in the seventh verse the words used in the third . . . 'Marvel not that I *said* unto thee, *ye* must be born anew.'" He adds, "I have noted nine quotations of the passage by Jeremy Taylor, who is not generally sup-

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* *Authorship*, pp. 31-34. To some extent Professor Drummond, we believe, anticipated Dr. Ezra Abbot's method and facts, but we have not been able to procure Mr. Drummond's Essay on the passage as quoted by Justin.

posed to have used many apocryphal gospels. All these differ from the common English Version, and only two of them are alike. They exemplify *all* the peculiarities of variation from the common text upon which writers of the Tübingen School and others have laid such stress, as proving that Justin cannot have here quoted John." The examples adduced fully bear out his position.* The patristic citations of the text prove nothing whatever against Justin's knowledge of *St. John*. The non-quotation of the words "of water and spirit" is sufficiently surprising. They are the very words a modern controversialist would have been most careful to cite. To readers of our own day this insertion would constitute a manifest improvement. To this extent Dr. Abbott's exposition of Justin's line of thought seems unanswerable. Nevertheless, in his eagerness to make the most of it, he overstates his case. He says, "the passage in John iii. 5, *if quoted without any omission*, as it now stands in our version, would have been exactly to the point." But John iii. 5 is not quoted at all, only John iii. 3. The difficulty is not that the apologist has adduced a text and left out the most pertinent part of it, but that of two texts he has preferred the less relevant. It is impossible to conceive him quoting John iii. 5 with the hypothetical omission: it is by no means impossible to imagine him selecting an earlier verse and forgetting to copy a later, or assuming that the first contained the second. A curious fact, however, is that Justin does not cite an even more relevant text than John iii. 5, viz., Matthew xxviii. 19 ("baptising them in the name of the Father, and of the Son, and of the Holy Ghost"). He has just spoken of baptism in the name of the Trinity, and could not have alleged a more conclusive scriptural proof of its rightfulness than the original command of institution. This striking omission altogether neutralises the argument from the non-quotation of John iii. 5, and suggests that we

* More homely illustrations might be given of the ease with which familiar texts, quoted from memory, become corrupt: *e.g.*, "I am trying to work out my own salvation *if it be but* with fear and trembling;" "Wherever two or three are gathered together in Thy name there art Thou in the midst of them, *and that to bless them*;" "Whatsoever any two shall agree to ask *as touching My kingdom*." The Fathers, who would naturally refer to their clumsy manuscripts comparatively seldom, were liable to reproduce popular inaccuracies. As one means of testing the phenomena of quoting Scripture from memory, the present writer has attended Friends' meetings at every convenient opportunity. Accuracy is certainly the exception, to say the very least.

should trace Justin's thought along a rather different course from that which we fancied it pursued. Dr. Abbott indeed cuts the knot he cannot untie. Justin's ignorance of John iii. 5 was equalled by his ignorance of Matthew xxviii. 19. Reminded that St. Matthew is one of the Synoptists, and that Justin quotes Matthew more often than any other evangelist, he replies that the closing verses of the First Gospel probably stand upon the same level of doubtful genuineness with the closing verses of the second. Reference to the numerous historical difficulties thus involved would be out of place; it is enough to state that this notion is absolutely destitute of critical support, is an *a priori* hypothesis, devised to meet immediate necessities, themselves created by a foregone conclusion.

The omission of both texts may be explained without recourse to any such violent suppositions. Justin asserts: "As many as are persuaded and believe that the things taught and said by us are true . . . are led by us where there is water, and are born anew by the same method of new birth as that by which we were born anew. . . . For Christ also said, 'Except ye be born anew,' &c." Plainly the most prominent thought in Justin's mind was that of the new birth; he so thoroughly blended the sign with the thing signified that to mention one was to mention the other. The symbolic use of lustration was familiar to the heathen. He had connected water with regeneration; he then proves the necessity of the new birth. He might well think that further testimony was needless. He did not pretend to give a full exposition of Christian doctrine, but only the reason of certain Christian observances. For this the cited words of Christ amply sufficed * The reference to the objection by Nicodemus accords with our view of Justin's meaning. The thought of the moral change implied dominated over that of ceremonial purification. There would be no need to guard birth by water against so gross a misconception, but it became Justin to assert the spiritual nature of true regeneration. Dr. Abbott considers the words about the impossibility of a

* Justin subsequently quotes the exhortation of Esaias, "Wash you, make you clean, &c." (Is. i. 16-20), and Dr. Abbott thinks for lack of other biblical support and from sense of the impertinence of his allusion to Christ's direction. The real reason of the extract from Isaiah is that part of Justin's contention is that the dæmons pre-imitated the Christian sacraments (*cf.* 1 *Apol.*, c. lxii). It behoved him, therefore, to show whence the dæmons obtained the notion before Jesus Christ had ordained the rites.

second physical birth to be a comment of Justin's own, accidentally coincident with a verse from the Fourth Gospel. Dr. Ezra Abbot pronounces them "an unmeaning platitude" unless they are merely an unconscious reminiscence of *St. John.* The coincidence is too close, the verbal expression too peculiar, too Hebraistic for the first supposition; it is too big with spiritual significance for the second.

We doubt the desirability of following Dr. Abbott's imaginary history of the development and combination of our Lord's sayings relative to the new birth. Both the *Encyclopædia* and the *Review* insist upon it so strongly and lengthily that we cannot pass it over in silence. The former publication summarises the theory thus:

"The probablity is that Justin's quotation represents one stage, and the Fourth Gospel another stage, of the Christian doctrine of the new birth, and the Ephesian 'usus ecclesiasticus' had not yet come to his knowledge, or, if it had, had not yet superseded the less developed tradition. The stages may be classified as follows: (1) Synoptists, 'Except ye become as little children;' (2) Justin, 'Except ye be born again;' (3) a third stage is implied in 1 Peter i. 3, 23 and iii. 21, and it would run thus, 'Except a man be born of the Spirit as well as water' (a protest against the Essene overvaluing of ablutions; see also *Sibylline Books*, iv. 164-174); (4) the inevitable transition hence was to the form in the Fourth Gospel, 'Except a man be of water and of the Spirit.' Here the authority of the Ephesian apostolic school arrested the development which would else have issued in (5) the Clementine stage, 'Except ye be regenerated by living water in the name of the Father, Son, and the Holy Spirit, ye shall not enter the kingdom of heaven.' If (6) 'living' had subsequently been omitted, the development would have been completed in a sixth and last stage."

Who would wish to withhold his meed of admiration from the consummate cleverness and minute investigation revealed by this paragraph? Nevertheless, it betrays the same faults that mar the beauty and usefulness of its author's fictions, *Philochristus* and *Onesimus.* It presupposes that the Primitive Church dealt with its sacred documents and with the words of its Lord after an incredibly negligent, daring, and dishonest fashion. It is historical criticism based upon unhistorical, nay, antihistorical principles. We need not recapitulate the observations of our former articles upon Dr. Abbott's

treatment of the Gospels and the Church to whom they were entrusted. Until the Synoptic Gospels are reduced to an agglomeration of myths around a centre of Original Tradition, fantastic schemes of the formation of particular passages have no *locus standi*. The theory now before us has its appropriate *internal* weaknesses:—Justin asserts that *Christ said* "Except ye be born anew," without other authority than a misconception of words from the Synoptists: the saying was derived from a distinct tradition a few lines before, now it becomes a stage in the development of another utterance: St. Peter does not give his "stage" as a saying of Christ's, and there is no other trace that such a stage existed: between Justin, St. John, and the Clementines, there is not sufficient space to allow of the indicated development: the growth was arrested at St. John's stage and yet went on to the Clementine: but perhaps we are arguing too seriously with a mere flight of fancy.

If Justin extracted the passage about the new birth from the Fourth Gospel, there is no hint in his manner of doing it that he placed that Gospel upon a lower ground than the other three. That we may fairly presume that he derived it from St. John may be inferred from the absence of all other authority whence he could have drawn it—if traditional, why was not that tradition preserved in some apocryphal gospel?—from the reference to Nicodemus's question about physical birth, and from the fact that only in *St. John* is the new birth correlated with baptism. On this last point much might be written. The doctrinal connection of the Sacrament with the experience can be explained satisfactorily only on the acknowledgment of the apostolic authority of the third chapter of the Gospel according to St. John.

When a reasonable presumption of Justin's use of the Fourth Gospel is established, allusions, turns of thought, resemblances of expression in themselves quite indecisive become confirmatory. This evidence is essentially cumulative, and to examine it piecemeal does it injustice, unless afterwards it is studied as a whole. There are certain correspondences in Justin common to both Philo and St. John, as undeniably Dr. Abbott has demonstrated. These are not altogether lost to us; they may have come from St. John, and the only question is whether Justin was more familiar with the philosopher or the Apostle. The notion

that the Evangelist and the apologist both borrowed from Philo labours under the disadvantage that it postulates a remarkable coincidence of thought and taste, while it allows no communication between the inspired and the uninspired Christian writer. The class of passages just referred to we must leave practically unnoticed, confining our remarks to those which we think Dr. Abbott has failed to trace to Philo, or which seem to indicate clearly acquaintance with St. John. The fairness of this procedure is manifest, for no one attempts to prove directly that Justin was not acquainted with the Fourth Gospel, but only that the affirmative evidence is not strong and cogent.

Both Justin and St. John apply to Jesus Christ the type of the brazen serpent. Professor Drummond is doubtless right in holding that this bare parallel does not count for much, as Justin "seized with avidity every type which a torturing exegesis could extract from the Old Testament." A somewhat stronger point is that both writers connect faith with the sign, and Justin even represents Moses as saying, "If ye look on this image and believe, ye shall be saved thereby," the insertion of "and believe" manifesting not the obviousness of the thought, but familiarity with it, probably grounded on John iii. 14, 15. Dr. Abbott quotes from Philo, "If the mind, when bitten by pleasure, *Eve's Serpent*, is able to discern with the soul the beauty of temperance, the Serpent of Moses, and through this, God Himself, he will live" (*Allegories*, ii. 20). The extract is taken from a discussion the very kernel of which is the contrast between the good and the evil serpent, and the limitation of the benefit of the good serpent to the lover of God ("for God enjoins him, 'make to thyself,' that you may know that temperance is the possession not of every one, but only of the lover of God"—*Allegories*, ii. 20). Dr. Abbott compares with his quotation from Philo the following from Justin: "God thereby proclaimed" "that he would break the power of the serpent which occasioned the transgression of Adam, and to those that believe on . . . him that was destined to be crucified, deliverance from the bites of the serpent, which are wicked deeds and other unrighteous acts:" and "the Logos became incarnate by the Virgin," "in order that the disobedience which proceeded from the serpent might receive its destruction in the same manner in which it derived its origin. For Eve, who was a virgin and undefiled, having conceived the word of the serpent,

brought forth disobedience and death" (*Dial.*, cc. 94, 100). He argues that "Justin much more closely imitates the original in Philo by retaining the contrast between the two serpents, and in one passage expressly mentions the evil serpent in connection with Eve" (*M. R.*, p. 575).

The cool assumption that St. John as well as Justin imitated Philo, deserves a word of rebuke. And Justin does not say the Word "became incarnate by the Virgin," but "became man through" her (*διὰ τῆς παρθένου ἄνθρωπον γεγονέναι*), a difference not without its importance. "Became incarnate" is precisely what he would have said if he had desired to preserve the parallelism between the two serpents. But the remarkable fact is that not a solitary syllable about the good serpent can be found throughout Justin's works. He studiously avoids the comparison between the brazen serpent itself and Christ. "The contrast between the evil Serpent and the good Serpent being once originated [? the contrast occurs in Rabbinical literature] by Philo, how natural for Christians sprung from the Alexandrine Jewish school to say that the good Serpent who destroyed the power of the evil Serpent was a type of Christ!" The observation is just, and the Fathers did employ the comparison largely. But Justin never countenances the identification of the good serpent with Jesus Christ. He alludes to the incident of the brazen serpent in the First Apology (c. 60), but he limits the analogy to the instrument—a cross—on which both Christ and the figure of brass were "lifted up." In the Dialogue (c. 94) the same comparison holds, and prominence is given to the method of Christ's death ("him that was destined to be crucified"); and in c. 100, the contrast is drawn carefully that "He became *man*," and that "the Holy Thing begotten of her was called *the Son of God*." And Justin adds that by Christ "God destroys both the serpent and those angels and men who are like him," as though but one serpent could possibly be thought of. If Justin was indebted to Philo's allegories for the suggestion of the brazen serpent, how comes it that he deviates so widely and so uniformly from his model? We cannot but suspect the influence of the Fourth Gospel, and that Justin saw the essence of the comparison of John iii. 14 in the double "lifted up;" and this suspicion is strengthened when we mark his disregard of Philo's limitation, and his representation of Christ crucified as the healer of all sin and

unrighteousness. We seem to hear an echo of the "whosoever" of John iii. 15, and the "all men" of John xii. 32.

A much controverted passage reads, "For that he was the only-begotten of the Father of all, having been begotten by Him in a peculiar manner as His Logos and Power, and having afterwards become man through the Virgin, as we have learned from the Memoirs, I showed before" (*Dial.* c. 105). The clause "as we have learned from the Memoirs" appears to include the entire statement, though it has been restricted arbitrarily to the statement about the birth through the Virgin. In the former case, the epithet "only-begotten" is traced to the Memoirs, and therefore to St. John, as it is not used by the Synoptists. But there is no need to contend for the reference, as Professor Drummond has pointed out. Justin comments upon Ps. xxii. 20, 21: "Deliver my (or Thy) Only-begotten from the hand of the dog." Justin applies these words to Christ, and reminds Tryphon of a former argument. We cannot be certain as to the chapter to which Justin alludes, whether the sixty-first or the one hundredth. Dr. Abbott takes no notice of the possibility of the former reference, because in the latter chapter Justin appeals for proof of the pre-existence of Christ only to the Synoptists. With either reference the cogency of Professor Drummond's reasoning remains:

"There is here no ground of comparison whatever except in the word μονογενής ['only-begotten"]. . . . It is evident that Justin understood this as referring to Christ; and accordingly he places the same word emphatically at the beginning of the sentence in which he proves the reference of this part of the Psalm to Jesus. For the same reason he refers not only to events, but to τὰ ὄντα αὐτῷ ["the things that belonged to Him"]. These are taken up first in the nature and title of μονογενής, which immediately suggests λόγος and δύναμις ["Logos" and "power"], while the events are introduced and discussed afterwards. The allusion here to the birth through the virgin has nothing to do with the quotation from the Old Testament, and is probably introduced simply to show how Christ, although the only-begotten Logos, was nevertheless a man. If the argument were—These words allude to Christ, because the Memoirs tell us that He was born from a virgin—it would be utterly incoherent. If it were—These words allude to Christ, because the Memoirs say that He was the only-begotten—it would be perfectly valid from Justin's point of view. It would not, however, be suitable for a Jew, for whom the fact

that Christ was μονογενής, not being an historical event, had to rest upon other authority; and therefore Justin, changing his usual form, says that he had already explained to him a doctrine which the Christians learned from the Memoirs. It appears to me, then, most probable that the peculiar Johannine title, μονογενής, existed in the gospels used by Justin."*

There is, however, another objection: if Justin had acknowledged the Fourth Gospel, he would have pleaded: "But that Jesus taught his disciples that he was the only-begotten, we know from the Memoirs, wherein it is written that he himself said, speaking of himself, God so loved the world, that He gave His only-begotten Son, that whoso believeth in him should not perish." It is not a little curious that expositors of the greatest weight do not recognise these words as Christ's own utterances, but believe them to be the addition of the Evangelist. No one will accuse Canon Westcott and Dr. Moulton of ignorance of St. John, yet neither would quote the words which Justin is condemned for not quoting.

Evidence of Justin's dependence upon St. John has been usually discovered in his statement that the Baptist declared "I am not the Christ," and in his connecting with the Baptist Isaiah's prophecy of the Voice crying in the wilderness (John i. 20, 23). The sole extant authority for these statements is the Fourth Gospel. Dr. Abbott relegates the account to an imaginary common tradition; though he betrays an uneasy feeling that the reference to *St. John* is the more likely, he adds, "if Justin is borrowing from the Fourth Gospel he probably regarded that Gospel as unauthoritative, and on a level with tradition rather than with the Memoirs." The reason given for this judgment is, that the section (*Dial.*, c. 88) in which the Johannine citation occurs contains statements not found in our present Gospels: that Jesus made ploughs and yokes, that at His baptism a fire was kindled on the Jordan, that the Voice from heaven declared "Thou art My Son; this day have I begotten Thee." But, on the other hand, the chapter relates the visit of the Magi, the entry into Jerusalem, the age at which our Lord began His ministry, and the descent of the Spirit upon Him like a dove. In view of these two sets of facts, one would fancy the legitimate

* *Theological Review*, pp. 179, 180. The whole argument, pp. 178-182, is well worth perusal.

deduction to be that Justin used the Fourth Gospel, but that *so far as this section is concerned,* we cannot decide whether he ranked it as apostolic or traditional. It should not be forgotten that early manuscript authority exists for both the fire on the river and the voice from heaven.

Five times Justin cites Zechariah xii. 10, as "They shall look on whom they pierced,"* in exact correspondence with John xix. 37. That the same form is implied in Rev. i. 7, is an obviously insufficient solution of the coincidence. Justin's preference of the Hebrew to the Septuagint requires accounting for. Even if the reading were already found in some copies of the LXX., and were not a later correction by Christian hands, it would be difficult to avoid recognising the influence of St. John. Dr. Abbott classes this passage as "one among many proofs that Justin used the same traditions as the Fourth Gospel." But surely it is more reasonable to refer the peculiar form and special application of an Old-Testament text to a document than to "tradition."

Two other palpable resemblances are deemed due to "Ephesian traditions." Justin twice speaks of Jesus as "sent" from God into the world (*Dial.*, cc. 17, 91). The application of this verb (*πέμπειν*) to Christ is a marked and frequent peculiarity of the Fourth Gospel. The coincidence of spirit and letter between Justin and our present *St. John* cannot be doubted; but the agreement must exist not with the Fourth Gospel, but with "the doctrine of the Fourth Gospel." The credit of indicating the second resemblance belongs to Dr. Ezra Abbot. Justin (*Dial.*, c. 123) remarks that Christians "are both called, and are the true children of God." The First Epistle of John (iii. 1, *cf.* Westcott and Hort, and Revised Version) exclaims, "Behold what manner of love the Father hath bestowed upon us, that we should be called children of God: and such we are" (*καὶ ἐσμέν*). Dr. Abbott first traces the wording—scarcely the thought—to Philo, then adds "Nevertheless—when combined with the use of the Johannine *ἀληθινὸς* ('true') and the phrase 'keep the commandments of Christ'—it may be accepted as one among many indications that the author of this Ephesian dialogue was not ignorant of the Ephesian traditions, many of which are now incorporated in our Fourth Gospel, and also in the

* Reading *ὄψονται εἰς ὃν ἐξεκέντησαν* for *ἐπιβλέψονται πρός με ἀνθ' ὧν κατωρχήσαντο.*

First Epistle, which is a kind of postcript to the Gospel." The device of attributing to "doctrine" or "tradition" these verbal and substantive correspondences really signifies no more than the necessity of explaining away awkward facts. Minute similarities of language and delicate shades of thought are precisely the least likely matters to be preserved by oral teaching. They imply documents of some sort, and St. John's writings constitute the only documents available. Moreover, these "traditions" are occupied in no small part with the discourses of Jesus, which, *ex hypothesi*, must have been composed long prior to Justin's use of them. They are thus brought into dangerous proximity to the lifetime of Christ, and into actual contact with the lifetime of the beloved disciple and the residence of his later years. By this path we approach very closely to a guarantee of the genuineness of the discourses, which "the newer criticism" attacks with so great fury and confidence. The notion of an Ephesian school, under the supreme influence of the still living or but recently deceased Apostle, engaged in fabricating the details of our Lord's life and formulating doctrine different and divergent from the opinions of the rest of the Christian Church, is so intrinsically improbable that we may spare the pains of showing further that it does not satisfy the phenomena involved.

Two other passages in which Dr. Abbott recognises the impress of the Fourth Gospel, but where Justin appeals to the earlier Memoirs, deserve fuller consideration than our limits allow us to bestow on them. In 1 *Apol.*, c. 63, Justin asserts that Jesus accused the Jews of not knowing the Father; the accusation as directly addressed to the Jews is recorded only in the last Gospel. But Justin quotes *Matthew* and *Luke* ("No man knoweth the Father, &c.") where the charge is universal; he might have cited John viii. 19, xvi. 3, &c. In *Dial.*, c. 100, Justin refers to the resurrection "which (thing, fact, &c.) he (Jesus) has, having received it from the Father" (ὃ ἀπὸ τοῦ πατρὸς λαβὼν ἔχει). Plainly Justin "has in his mind" John x. 18; but he adduces Matthew xi. 17, xvi. 21. Dr. Abbott's commentary upon the second instance, practically identical with that on the first, reads: "Why should Justin thus have substituted a comparatively inappropriate quotation for the passage which he had *in his mind*, and which was perfectly to the point, except because he felt that it did not

possess the same authority as the Memoirs which contained the written words of the Lord?" An *argumentum ad hominem* suggests itself instantaneously. If Justin did not believe the authenticity of the Fourth Gospel, why did he repeat its statements? Rejection of the Gospel would have necessitated denunciation of, or absolute silence about, it. The sensitiveness of conscience which hindered Justin from *quoting* a Gospel the apostolic authority of which he did not hold would have debarred him altogether from the use of it. We must seek a reason for its influence upon Justin and his abstinence from mentioning it to his opponents elsewhere. We have, on p. 77, suggested motives which prompted Justin's restraint in the *Apologies* and in the *Dialogue*. But more than this, Tryphon claims to have read the Gospels, and to be acquainted with their contents; what more likely than that he had read only the Synoptists? If Tryphon be an imaginary character, yet it might well be prudent to assume that the Jews were acquainted with the first three Gospels alone. And besides the unfavourable light in which St. John represents the Jews, its un-Jewish theology might prevent Justin's calling a Jew's attention to this Gospel.

The quiet preterition by the *Encyclopædia* of the evidence from the use of St. John's Gospel by the heretics is broken in the *Modern Review*: "The Gnostic Valentinians and the Gnostic Encratite Tatian took one view of the Fourth Gospel; Justin Martyr (who was not a Gnostic) took another." The Essay states and replies to the overwhelming difficulty this theory raises in words we are compelled to extract entire:

"How, then, did the Fourth Gospel, patronised by Gnostics and regarded with suspicion by the comparatively orthodox Justin, win its way so rapidly in the Church that, by the end of the second century, it was not only universally recognised, but even all traces of hesitation have been obliterated, except such as may be detected in the works of this single author? Those who regard this question as unanswerable, except on the hypothesis of apostolic authorship, not only make too little allowance for the non-critical and receptive spirit of the Church in the earliest ages, but also do a great injustice to the intrinsic power of this most spiritual treatise. It succeeded because it deserved to succeed; because it was, spiritually speaking, in accordance with the truth; because it truthfully protested against the thaumaturgic tendencies of the Church by exhibiting Jesus principally

as a worker of spiritual and not material marvels; because it truthfully represented Him as a Leader who was not, and who could not be, understood till His physical presence had been succeeded by His spiritual presence; because it finally and definitely rescued Christianity from the danger of becoming a narrow sect of Ebionites; and lastly, because, in answer to the cavils of heathen cynics who scoffed at the notion that the Father of men could have awaked from ages of neglect to send His Son at last as a Saviour into a corner of Syria, it raised and established for Christ's religion the claim that it was not an afterthought or extemporised epilogue, but a preordained and continuous drama, co-extensive with the history of the Universe, wherein the Protagonist was none other than the Eternal Word or Wisdom, who from the beginning was with God, and was God" (*Modern Review*, pp. 755, 756).

And all this was accomplished by a fiction! In *Through Nature to Christ* Dr. Abbott announces that he believes St. John's picture of Jesus Christ to be essentially correct, really truer than that which we gain from the other three Gospels. The anonymous, unknown author has composed a more accurate and sympathetic *life* of Jesus of Nazareth than those that walked and talked with Him three years in daily communion! He has not reset their narratives in the burnished gold of his marvellous genius, he has written another history, the events as well as the spirit of which differ from those of the preceding biographers. The uncritical, spiritually sensitive Church cordially accepted his production; they could perceive its beauty but not its falsehood, its inner truthfulness but not its outward contradiction of their cherished records. This Church of "thaumaturgic tendencies" cast away its appetite for wonders without struggle, without protest, without hesitation, in obedience to a phantom raised at the bidding of a secret conjuror. And the very individuals who were attracted by the superior power and beauty of this latest Gospel failed to see its variance with the Gospels they had. Total blindness was conjoined with abnormal quickness of vision. The wonders have not yet ceased. The Christ of history, *i.e.*, of the Original Tradition, belongs to "a corner of Syria;" the world-wide Saviour and Enlightener springs forth from the pages of Philo and his undiscoverable disciple. If this be so, not Jesus the Son of Mary, but Philo and the pseudo-John deserve the world's homage, gratitude, and love.

But Dr. Abbott cannot content himself with these inconsistencies and incredibilities; he must reduce the theory to an absurdity himself. The Fourth Gospel issues from the Ephesian school, yet it is acceptable to the Gnostics and viewed with suspicion (at first) by the orthodox. It is the Gnostics who manifest this fine spiritual perception; and by these hated and dreaded heretics the Church condescends to be taught, and from their hands it receives "the spiritual Gospel" it had rejected as the gift of Ephesus. The theory outrages history no less than probability.

The design of this article is chiefly to prove Justin's alleged disregard of the Fourth Gospel need not constitute a stumbing-block to those who are prepared on other grounds to receive it. But incidentally we have endeavoured to make manifest that Justin indeed witnesses to the existence of the Gospel at the date of his writing, and to his acceptance of it as authentic and apostolic.

ART. V.—1. *The Remote Antiquity of Man Not Proven. Primeval Man Not a Savage.* By B. C. Y. Elliot Stock. 1883.

2. *The Recent Origin of Man as Illustrated by Geology and the Modern Science of Pre-historic Archæology.* By J. C. SOUTHALL. Philadelphia: Lippincott. London: Trübner. 1875.

3. *The Epoch of the Mammoth and the Apparition of Man upon the Earth.* By JAMES C. SOUTHALL, M.A., LL.D., Author of "The Recent Origin of Man." Trübner. 1878.

4. *A Scientific Symposium: Subject, The Antiquity of Man. Papers selected chiefly from the Transactions of the Victoria Institute.* By THOMAS K. CALLARD, F.G.S. With a Preface by Percy Strutt, Author of "The Inductive Method of Christian Inquiry." For Private Circulation. 1880.

5. *The International Scientific Series.* Vol. XLIV. *Man Before Metals.* By N. JOLY, Professor of Science at Toulouse. Kegan Paul and Co. 1882.

6. *Cave Hunting: Researches on the Evidence of Caves respecting the Early Inhabitants of Europe.* By W. BOYD DAWKINS, M.A., F.R.S., F.G.S., F.S.A., Curator of the Museum, and Lecturer in Geology in the Owens College, Manchester. Macmillan. 1874.

7. *Early Man in Britain.* By W. BOYD DAWKINS, &c., &c. Macmillan. 1879.

IN *La Terre Avant le Déluge*, a book by Figuier, who half a generation back did for geology and physical geography what Flammarion in France and Proctor in England have been doing for astronomy—popularised them without eliminating from his books the scientific "back-bone"—there are a number of sensational plates depicting a storm in the carboniferous period and so on. Figuier was a catastrophist. Sir C. Lyell on the contrary was an uniformitarian, and, just about the time when Figuier was writing, he, presiding at Bath at the British Association meeting in 1861, said, "We are gluttons of time. Time, time is what we want; with plenty of time we can do anything."

It was a strange place for the remark; for surely no amount of time would account for the thermal springs

which make that little basin of the old Ake-Mannes-Ceaster like an ever-steaming cauldron, or for the sudden bend (due doubtless to the same cause which brought and brings them to the surface) that makes the Avon valley turn at right angles on itself. But, just then, English geologists were nearly all of them bent on explaining everything by the action of existing forces. Volcanoes were admitted because they are still going on, and their effect in raising and depressing coast-lines is a measurable quantity. But the disposition was to throw even them into the background. They did something, but not so much as had been asserted. The great work in shaping the earth had always been those same atmospheric changes—rain, frost, heat, and that tidal action which are doing the same thing before our eyes, *and at the same rate*, for there was the great postulate. It is hard, of course, to prove a negative; but what reason is there for imagining that these forces acted in early ages with more intensity than they do now? They are now doing a vast work; why should the "cyclic storms" of which "the random forms" that nature first grew were the random prey, be anything more than a poet's dream? It was a natural reaction from over-catastrophism. The earlier geologists had taught that each epoch ended in a cataclysm. One of them, finding a saurian with a half-devoured brother reptile in its mouth, talks of the monster overtaken by chaos while in the midst of his unnatural meal. Later discoveries showed that one epoch passes by insensible degrees into another, that most cataclysms have been only partial; and later geologists were too wise to base catastrophism on what happens every time a number of wild animals are drowned in a river flood. Orthodoxy, too, had unwisely displayed its not unnatural alarm at the temper of much geological writing. It had given up the Word, and had bound itself to Archbishop Ussher with his six thousand years, or to Hales with his seven thousand some hundreds. To fit everything into those limits needed indeed an accumulation of cataclysms. Hence the feeling in favour of uniform causes acting at the same rate as now; and hence the demand for time, since erosion, and the deposit of silt, and the formation of peat, &c., go on in most places very slowly at the present day.

It was in America that the first note for retreat from what was clearly an untenable position was sounded. There men saw before their eyes the workings of the Mis-

sissippi, not only in its delta, but near its head-waters, where the watershed is so uncertain that affluents which one year flow to the great river another year make their way into Hudson's Bay. They could watch in the primeval forest, in the swamps of Carolina, the deposits of peat and silt, and found the rates vastly different from those according to which the dates of flint implements, &c., had been calculated. They were face to face with men, as fully men in every sense as themselves, who were still living in the stone age. No wonder that Mr. Southall should have taken exception to the enormous antiquity claimed for man by our French and English geologists on the faith of the uniform action of causes which in the New World are at this very day acting at quite a different rate from the European.

The next protest also comes from America. Professor Dawson, of Montreal, is another stickler for the modern date of "palæolithic" implements. Some of us may remember his account of how, during excavations at Montreal, bones, pottery, &c., were found, which were seen, from Jacques Cartier's description, to have belonged to the Indian town of Hochalaga, but which, had that description not been at hand, would certainly have been claimed as pre-glacial. There is great force in this; the American red man is still in the neolithic age. It is Sir J. Lubbock's argument turned the other way, and much more convincing than in its original form. You have a man living this stone-age life in one part of the world; why must you go back countless ages before you can say that he was living the same life in another part? We may fairly push Professor Dawson's argument yet further. In Australia man is found living with marsupials, and (till the white man brought in other creatures), with no other kind of mammalia. Now, suppose Australia had been submerged and lifted up again shortly before its discovery, as long stretches of the South American coast have been since the days of European colonisation, then, human remains would have been found, in beds of silt or drift, along with marsupials only—clear proof, the believers in man's very early appearance on the globe would have said, that the human race was in existence earlier than any other placental animal. We do not think Professor Dawson an unerring guide. He is quite right when, in common with Mr. Boyd Dawkins, he adopts the argument "that an evolutionist at least must not believe there was any meiocene man, for in the vast ages between meiocene

and pleistocene, the man would necessarily have developed into something else." To this the only possible reply is the weak one: "No, not necessarily. Creatures only develope when their surroundings are not modified up to their requirements. The lingula, having found a *milieu* that suited it, has remained unchanged from almost the dawn of animated life." But man is not a lingula; he is highly specialised; and the *milieu* has so far changed as to destroy all the meiocene fauna which would have been his contemporaries. There is much more in Mr. Dawson's book on *Fossil Men* besides the account of this Montreal "find" which seems to us unanswerable. Indeed, we wholly fail to comprehend the strange bitterness with which it was attacked in *Nature*, the dilemma in the reviewer's mind being that "either Professor Dawson is a scientific malcontent, or he is an instance of superstitions surviving in the colonies after they have died out at home."

Mr. Southall's books, above all, should be read by those who wish to hear both sides of this question. He comes to it as a man who believes his Bible, protesting, and justly, against the disingenuousness of men of science. Of this Sir C. Lyell's *Antiquity of Man* is a notable instance. It is clearly all, from beginning to end, directed against the record in Genesis, yet the Bible is never once mentioned or even hinted at. We note a very few of the points which Mr. Southall makes. Several of these are connected with the premature announcements of science. Thus "the fossil man of Florida," supposed to be in a coralline formation, deceived Lyell. It was afterwards proved by Agassiz to be imbedded in freshwater sandstone, full of shells of living species, which cannot be more than ten thousand years old. The skeleton from Guadaloupe, in the British Museum, is still more certainly of quite modern date. The calcareous deposit in which it lies is just what is formed at Matlock and elsewhere over birds' nests and all kinds of objects. The erosion of the Somme valley Mr. Southall is able to illustrate by what is now going on in the Mississippi. The banks of the French river are parallel, the floor level; there can, therefore, be none of the irregularities of a fluctuating stream, but a strong river a mile and a half wide, and at least twenty feet deep, must have been at work, and must have worked much more quickly than any modern agency. Another point which he notes is the probability that till quite recent times

Siberia was submerged. A great sea there would have tempered the climate of Northern Europe and Asia; and the change to cold must have come suddenly, because it caught the mammoths and encased them in ice. One more thing to be remembered is that in Egypt, the home of old culture, there seemingly never was a stone age. There is nothing behind the civilisation of the Pharaohs. You find stone knives and other "palæolithic" things, but they are associated with the ordinary contents of mummy-cases. Many of the very earliest statues are the most beautiful. It seems as if perfection started into life at once. This cannot be explained away. The persistence of the types, human and animal, on the monuments has been met by the hackneyed phrase: "They've not changed because they had found their suitable environment." Man in Egypt, very soon after the date given by Dr. Hales for the creation (7286 years), was highly civilised; and nothing has been found in the Nile Valley to indicate any less civilised being from whom he might have been developed. Contemporaneously with him man was living in the outlying parts of the world in a more or less savage state. The man of the Solutré caves, who was by some hasty observers relegated to the meiocene beds, is proved to be between six and ten thousand years old; he was a savage, in the sense in which the word is sometimes used. But he was not devoid of *savoir faire.* The Solutré remains prove him to have been a horse-killer, and his horse was tamed, for a drawing on a reindeer bone shows it with a hogged mane. Moreover, the horses were not killed at a distance and carried to the caves, because every skeleton is found complete, and the animal must have been put to death close to where it is now discovered. As Pruner Bey says of this very Solutré man: "Cet homme quaternaire est constitué homme dans toute la force du terme. Rien dans sa physique indique un rapprochement avec les Simiens."* Whatever may be the significance of an abnormal skull here and there, his works prove him to have been no mere savage. He was at least as civilised as the Greenlander, whom he resembled, amongst other things, in the habit of burying his dead under the floor of his hut.

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* Compare Boyd Dawkins (*Early Man in Britain*, p. 168): "The few fragments of human bones of undoubted pleistocene age prove that at this remote period man was present in Europe as man, and not as an intermediate form connecting the human race with the lower animals."

The general method of all these reactionists against the cry for vast periods of time, is to bring the mammoth forward, instead of carrying man backward. And the fact that the gelatine is not perished from the mammoth-bones found in our Cresswell caves is very important; though we cannot turn the argument, and say that a bone out of which the gelatine has perished is necessarily very old, seeing that this perishing is a variable process, sometimes accomplished with great rapidity. In like manner they all bring the ice age near, instead of pushing it back into the very remote past. Mr. Southall's *Recent Date of the Glacial Age Demonstrated* is a good summary of what is to be said on this side. The cause of that ice age is wrapped in mystery, a mystery which Professor Geikie and Mr. Croll try in vain to penetrate. One thing is certain, some of the astronomical causes on which it has been made to depend would carry it infinitely too far back for the time to which the remains clearly prove it to belong. This probably recent date of the ice age must be borne in mind along with the cautious summing up of that very acute observer, Professor Boyd Dawkins: "Man is probably interglacial and preglacial in Europe; certainly postglacial in that part of it which lies north of the Thames valley." No one will accuse Professor Dawkins of temerity. He often reproves the rashness that seizes on faulty evidence, and has a laugh at those who built so much on the "human fibula" in a Yorkshire cave, afterwards discovered to be ursine. Hence, when he looks on the time required for the accretion of stalagmite, and for the erosion of the Somme and Thames valleys as "the real bone of contention," agreeing herein with Professor Birks (*Modern Geogonies Examined in their Bearing on the Antiquity of Man*), we feel the vast importance of the facts adduced by B. C. Y., in reply to the insatiable time-demands of Mr. Pengelly and others. If the growth of stalagmite is so irregular that no time-argument can be based on it; and if, further, the flints found in the lowest beds of Kent's Hole and the Brixham Cave are (as Mr. Whitley says) just what are found every day to result from the accidental fracture of flint nodules, Mr. Pengelly's reasoning falls to the ground, and we are left (as Mr. Callard says), "with our feet on the boulder clay, which we are sure was the bed of the icy ocean, safe there, and waiting for more light."

Mr. Boyd Dawkins's summary is: "Man lived in Ger-

many and Britain, after the maximum glacial cold had passed away; and we may also infer, with a high degree of probability, that he emigrated from Europe along with the pleistocene mammalia in the pre-glacial age."*

The cautiousness of Mr. Dawkins's remarks throughout is in striking contrast with Sir C. Lyell's continual cry for vast spaces of time. To the *origines* of man (which he agrees with Dr. Falconer are to be sought, not in Europe, but in tropical Asia) he at once confesses his cave hunting gives no clue. "The higher apes are represented in the European meiocene and pleiocene strata by extinct forms uniting in some cases the characteristics of different living species, *but they do not show any tendency to assume human characteristics.* Indeed, the study of fossil remains throws as little light as do the documents of history on the relation of man to the lower animals. The historian begins with Assyria and Egypt, and can only guess at the steps by which those civilisations were achieved. The palæontologist meets with the traces of man in the pleistocene strata, and he too can merely guess at the antecedent steps by which man arrived even at that culture which is implied in the implements. *The latter has proved that the antiquity of man is greater than the former had supposed. Neither has contributed anything towards the solution of the problem of his origin.*" Further than this, it is important to note, Mr. Dawkins does not go. He mentions that modern bones, under certain conditions of calcification, lose their gelatine very soon and become chemically identical with older bones in the same matrix.†

This question of time it is well to keep distinct from others which have been mixed up with it. In forgotten

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* *Cave Hunting*, p. 410.

† "The condition of a bone is a very fallacious guide to its antiquity, and though the fragments of the older contents of the cave are in a different mineral state, it is improbable that the ossiferous contents of so large a cave should have been mineralised exactly in the same way. Nor is an appeal to its perfect state conclusive, since several teeth of bears which I have examined from the breccia are equally perfect." This is Mr. Boyd Dawkins's verdict in answer to Mr. Pengelly and Sir C. Lyell, who thought that the discovery, *in the uppermost part of the cave earth* at Kent's Hole, of another incisor of the *machaerodus latidens*, associated with bones of horse, bear, hyæna, &c., *proved* that this creature lived in the later pleistocene age, when the later cave earth was deposited (*Cave Hunting*, p. 323). The passage is valuable as showing the cautious way in which the evidence from bones is estimated by him who has had the most to do with them.

books of speculative unorthodoxy used to be discussed the difference between "the man," the Adam, who was made in the image of God, and the ordinary human creatures who had no such distinction. It made little difference whether these non-Adamites were pre-Adamites or not. In those days nothing was said about Elohist and Jehovist; but many fancied the two accounts in Gen. i. and ii. referred to distinct races. Just so, there are polygenists among the Darwinians, men who hold that the Australian, for instance, is developed from a different monkey from him who was the ancestor of the white man.

Such speculations as we have hinted at are, we think, closed by the word, "As in Adam all die, so in Christ shall all be made alive." With any other race than that of Adam the New Testament certainly has no connection. Now the Adamite was undoubtedly not a savage, and Mr. Callard is justified in saying that "if Scripture language is only parabolic, yet not misleading but foreshadowing the truth, there can have been no such creature as palæolithic man, a half-beast for whom there was no room to fall lower. How can it be said that such a creature was made in the image of God? And how can restitution, the encouraging note of Scripture promises, mean anything if man's course has been progress without fall?" This is very cogent, and, for those who hold to the Word, it answers the glowing unrealities of Dean Stanley's funeral sermon on Sir C. Lyell, when he exults in the idea that men are "the heirs of the unremembered ages and of the worlds that perished in the making of us."

Mr. Callard's tracts may be profitably looked through by those who have not the time to read Mr. Southall.* He remarks that, while Professor Geikie asserts man to have been interglacial, Sir C. Lyell (*Geological Evidence of Man's Antiquity*, last edition) is content to believe him post-glacial. He points out the weakness of the uniformitarian argument. "It will not do for gravels;" Professor Prestwich confessed "that the formation of the higher gravels can be owing to the action of the present rivers is clearly impossible under present conditions." It certainly will not do for the peat, which now grows at the rate of two inches in the century; whereas, since alder and beech stumps are found *standing* a yard high in peat,

* Canon Rawlinson's tract, "Present Day Series" (Religious Tract Society), is also an excellent summary.

this must have accumulated so fast as to have risen that height before the trees could rot, *i.e.* (as is judged by what is actually going on in American swamps) in about sixty years. The rate, therefore, must have been about five feet in a century, and this is found to be the usual American rate. Neither will it do for the rainfall; the Somme as it now is, if spread over the valley, would give only half an inch of water, while the old Somme rolled down gravels as big as a man's head and boulders of a ton weight. The rainfall must have been at least 125 times its present amount.

Again, the argument from the caves is based on the supposition of uniformity in the deposit of stalagmite. Because names cut in a Yorkshire cave in 1615 are still legible, the deposit having been less than the eighth of an inch in more than two centuries, therefore endless ages are claimed for the formation of the beds of stalagmite below which are found the so-called "palæolithic" implements. There are two answers: first, when the surface, on which now in the case of Kent's Hole there is nothing but a little brushwood, was clothed with dense forest, there was in the decaying vegetable matter a much larger supply of carbonic acid, a quicker solvent for the carbonate of lime; next, the quantity of carbonate of lime would in most soils grow less and less each year as it got washed out by rains. A very rapid deposit is going on in some places at the present day. In Poole's Hole, for instance, the gas-pipes put in for lighting up were found to be coated an eighth of an inch in six months.

Another objection which certainly has some force is that no human bones are found along with these chipped flints. These latter are found, not in the vegetable mould, but in coarse gravel where they might have resulted from accidental concussion; and no one can distinguish man's work from those which are the result of accident. Blake's patent stone-breaker, for instance, gives flint flakes just like the "prehistoric" ones. Mr. Callard clearly inclines to the notion that the flints are not artificial; Professor Gaudry, on the contrary, followed by Mr. Boyd Dawkins, suggests that they may have been the work of some anthropoid ape, though (as has been shrewdly remarked) no existing apes, not even one of those who use stones for cracking fruits, has ever been seen to make or use a flint flake.

One great argument for the vast time claimed by Mr.

Pengelly and others is, that the Brixham Cave shows upraisings and depressions which, at the present rate in these lands, would require vast periods for their accomplishment. Shallower reasoning it is difficult to imagine. It begs the whole question. What right have we to talk of the present rate as the measure of action in days when the Hebrides were most of them active volcanoes, and when the Ashby-de-la-Zouch coal field was being so curiously contorted by the upheaval of the granitic mass of Charnwood Forest? There are instances enough before our eyes, in Mexico, in Southern Italy, in the Greek Archipelago (Santorin, to wit), to prove that these Brixham changes might have occurred suddenly. One thing is clear, existing causes never could have brought them about at all. This cry for uniform causes is a reaction from the absurdities of the catastrophists; but these absurdities must not blind us to the fact that catastrophes do occur even now. A volcano will do in a day what wind and rain would not effect in countless ages. And this present season with its abnormal floods may well remind us that in her more peaceful working nature is far from being always consistent. As Professor Morris and Mr. Evans (*Stone Implements*) remark about the Somme, "Who shall say at what intervals floods occurred, and what was the average effect of each?" To insist on uniform effects from such uncertain causes is sheer doctrinaire obstinacy.

"The rate of erosion of a valley, or the deposition of silt in the bottom of it, or the accumulation of stalagmite in a cave are equally uncertain, since they depend on variable and intermittent causes; and they are therefore blind guides to the lapse of time" (Professor Dawkins's letter to Mr. Callard on the contemporaneity of man with the extinct mammals). Mr. Pengelly gives a warning which (if we rightly read his statements) he himself has not always borne in mind: "Be careful in scientific inquiries that you get a sufficient number of perfectly trustworthy facts, and that you interpret them with the aid of a rigorous logic."

It does not concern our present purpose, but it is still very interesting to note the astronomical arguments which may be adduced for geological operations having been more rapid and on a more gigantic scale the further we go back in the history of the planet. Two Essays by G. H. Darwin (*Phil. Transacts.*, 1879, Parts I. and II.) on "The Tides of Viscous Spheroids," and also what Dr. Ball, Irish

Astronomer Royal, now lecturing at the Royal Institution, says about the tides, &c., may be read with advantage in this connection. Forty-six million years ago the day was only fifteen and a half hours long, fifty-seven million years ago it was six and three-quarter hours, the lunar month being four days and a half. There were greater tides, and therefore greater oceanic denudation; the quick succession of day and night would bring frequent storms; the rotation was more rapid, there were, therefore, stronger trade winds.* And very much nearer our time these same causes must have been so much more powerful than they now are as considerably to hasten on the results to which we have so long been taught to assign measureless periods.

Professor Geikie has been somewhat misrepresented as urgent in his claim for vastly long ages. He rapidly traces the chief strata since the dawn of modern forms—the fire-clay in which grew the plants of the coal; the meiocene, in which our horse was represented by the anchitherium, a small weak creature about the bigness of a sheep; the pleiocene, in which he had developed to the hipparion, a sort of three-toed quagga; the pleistocene or glacial, which gave us the till or boulder-clay, and which was followed by such a great depression that marine shells are found on Snowdon, 1,300 feet high. "Man," he says, "came into Europe in the interglacial period, and staid there. The flints found in the thick river gravel-beds *fell through the ice-holes while he was fishing.* Few or none of his bodily remains are found in these gravels, because what did get there would soon be ground to powder." He, too, reminds us that the stone age is not yet extinct in the world, and that man in Finmark, and elsewhere, is still living in the ice age. And he quotes the very important remark of Dr. Arthur Mitchell, in *The Past in the Present*, that we must not say an implement is ancient because it is rude. To us it rather appears that the author of *The Great Ice Age* is by no means one of the "gluttons of time." What can be more cautious than this? "To assert that a brick earth is older than a cave breccia, because it contains some bones which the latter does not, or fails to show some which the latter does yield, is too often a conclusion drawn because it agrees with presumption." At the same time, he thinks

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* Dr. Ball has put prominently forward one of the sources of heat supply, even if the sun cools. Energy is converted into (hypogene) heat by internal tidal friction.

very lightly of the theory which makes the terraces of alluvium in which chipped flints are found to have been terraces still in the days of palæolithic man (Dawson), who in summer came down to till them from the plateaux where he lived in winter, retreating as soon as the winter floods rose, and leaving his flint hoes behind him. The difference any one can see is very great, for if the terraces have all been deposited since the flints were in use which are found in them, the existence of man is carried back to a very remote period. If, on the contrary, they have ever since man first appeared been terraces of flood-land, the probable antiquity of the remains is much lessened. They may (as Dr. Dawson suggests) have been the hoes and mattocks of the very same men who, in their homes on the upland, had flint arrows, and the other implements usually called *neolithic*. Dr. Geikie does not, indeed, pooh-pooh this supposition; but he says, "from the nature and structure of some of the high-lying gravels, there can be little doubt that they were formed at a time when the rivers, then larger than now, were liable to be frozen, and to be obstructed by large accumulations of ice. *We are thus able to connect the deposits of the human period with some of the later phases of the ice age in the west of Europe.*" *

Naturally, those who wish to put themselves in a position for ascertaining the truth must read both sides. They must read Lubbock as well as Dawson (the two argue along exactly opposite lines from the same facts), Lyell as well as Taylor, Pengelly as well as Callard. But they must not neglect the men who are content to abstain from theorising, while patiently seeking for new facts. Foremost among these is one from whom we have already quoted, but who cannot be too often kept before our readers. Indeed, we recommend every one who takes up this subject to read Professor Boyd Dawkins's *Cave Hunting* and *Early Man in Britain*. It is going to the original source instead of to second or third hand authorities. The history of cave exploration (on which, we must remember, the question of man's age depends) is briefly sketched, from the discoveries by the Spaniards of the caverns of the Guanches, that

* "The deposits which contain the history of the human period are cavern loam, brick earth, river alluvia, lake bottoms, peat mosses, sand dunes, loess, and other superficial accumulations" (Geikie, *Text-Book of Geology*, p. 903).

strange people in whom a bit of neolithic culture was preserved by insulation, just as, from the same cause, the early Norse culture has been preserved in Iceland. The German bone caves seem to have been first ransacked in the sixteenth century, when superstition was dying out owing to the Reformation. It was *ebur fossile*, or as it was also called unicorn's horn, a notable ingredient in the prescriptions of the time (as it is now in those of the Chinese), that was sought there. Dr. Gesner, in 1603, was the earliest scientific man who directed his attention to them. His view, which was again put forth, when the great cave of Gailenreuth, in Franconia, was explored in 1774, was that the bones, evidently many of them belonging to elephants, hyænas, and other creatures now confined to the tropics, had been swept in by Noah's flood.

In our own country the Oreston Cave, near Plymouth, was explored in 1816; while Father M'Enery, a Roman Catholic priest, began his search in Kent's Hole in 1825, and continued it till 1841. He strove in vain to make the scientific world recognise the fact that he had found flint flakes along with bones of extinct creatures. Even Dr. Buckland was for a long time incredulous,* though by-and-by he discovered traces of man along with the extinct mammals in the Paviland Cave, Glamorgan. So strong was prejudice, that till 1859 M'Enery's MSS. were unnoticed. Then came the Aurignac Cave, described by M. Lartet, about which, as affording incontestable proof of man's co-existence with extinct animals, there was a great flourish of trumpets. Unfortunately for the theorists, our countryman, the Rev. S. W. King, who carefully explored the cave in 1865, showed that the interments in it were not palæolithic, pottery and other more recent objects being found among them. Mr. King pointed out the vagueness of M. Lartet's account, and the untrustworthy way in which he trusted to the descriptions of the stonemason Bonnemaison, who broke into the cave and brought out seventeen skeletons which he buried in the churchyard. Very interesting are Mr. Dawkins's remarks on the identity of form in the skulls (dolicocephalic) found by Mr. Busk, in the Genista Cave, at Gibraltar, and in Cefn and the other caves near St. Asaph, showing "the wide range of the

* In *Reliquiæ Diluvianæ*, published 1823, he denied the co-existence of man and the extinct animals.

Basques at the dawn of history"—those Basques, with jet black hair and eyes, who are found unmixed in Brittany and the Meuse valley, and who are identical with Kabyles and Berbers, and with the extinct Guanches. His geological maps of Europe, at various periods, prove how vast have been the comparatively recent changes. The Mediterranean was a small inland sea, Africa being joined to Spain and also to Sicily and Italy; while Great Britain, joined to France, not only at the Straits but by the whole of its southern shore, was enclosed in a big continent of low rich land stretching north and west into the Atlantic, and filling up most of the North Sea, over which roamed the herds of mammoths and reindeer, &c., just as nowadays the herds of bisons roam over the still unvisited parts of the American continent. With these creatures lived the predecessor of the Basque, the palæolithic man whom Mr. Dawkins identifies with the modern Eskimo; and of him he confidently affirms: "There is no evidence of his having been less developed than many tribes of men now." The great breadth of land surrounding Great Britain in all directions is proved, we are told, by the size of the trees in the submarine forests. They would not be so large had they not grown at a long distance from the sea."

Mr. Dawkins comes down to much later times; in the caves in Settle (Yorkshire) he finds evidence of a long continued settlement of the Brit-Welsh flying before the Anglian invader. Mr. Green has adopted this view in his history; some of us may remember the pathetic account of the gradual degeneration of the fugitives, based on the deterioration of their implements—the most civilised being found at the lowest depths. All through, whether he is hunting with Dr. Falconer through the caves of Gower, or speculating on the co-existence of man with the hippopotamus in the Nerbudda valley (accounting for the traditions of a "water-elephant"), he is eminently cautious. To our other instances of his caution let us add this general remark: "there is no certain trace of man older than pleistocene." Indeed we may safely set him down as a catastrophist, for he talks of "a swinging to and fro of animal life over that great fertile area which covered the British Channel and nearly all the North Sea and German Ocean;" and of man coming now and then alternately with hyænas. And this makes him careless about insisting on vast periods, for convulsionists are naturally far less

"gluttons of time" than uniformitarians. Of *Early Man in Britain*, we take it, the most interesting part is the opening chapter, showing the continuity between geology, archæology, and history; though his picture of the eocene period of Great Britain, when Mull and Skye, and other Hebrides flamed with volcanoes at least ten thousand feet high; * and when, except the southern end of the German Ocean, and a little lake south of the Isle of Wight, there was land between France, Ireland, England, and Scandinavia; the Baltic, too, being non-existent; and when, moreover, land connected Scotland with Iceland and Greenland, while Scandinavia by way of Nova Zembla stretched to the Pole, is almost as interesting. In this world of hipparions, and mastodons, and deinotheres, and hogs, and deer, and higher apes, with warm climate and abundant food, did man live? No, says Mr. Dawkins; and one great reason against his having then existed is that "no living species of land mammal has been met with in the meiocene fauna. Man, the most highly specialised of all creatures, had no place in a fauna which is conspicuous by the absence of all the mammalia now associated with him." This argument, of course, tells with all the greater force on evolutionists; for, as we have noted already, if man existed in meiocene times, and those times were removed from ours by so many ages, "it is incredible that he alone of all the mammalia then living should not have perished, or have changed into some other form." There is no escape from this dilemma. Either the meiocene age, and, therefore, all subsequent ages, are brought much nearer to our day, or meiocene man, had there been such a creature, must have developed in the same sense in which the hipparion is supposed to have developed. Concerning the Abbé Bourgeois's flints from the mid-meiocene strata at Thenay, which were shown with so much confidence at the last Paris Exhibition, Professor Gaudry (*Les Enchaînements*, p. 241), suggests, as we said above, that they may have been the work of the great anthropoid ape (*dryopithecus*) then living in France; and, in answer to the sneer that apes nowadays do not make stone implements, Mr. Dawkins remarks: "It does not follow that the extinct

* The height of the Mull volcano is calculated by analogy, for its cone has long ages since been worn away. Etna from a base of only 30 miles round rises to 10,900 feet. The base of the Mull volcano was at least 40 miles round.

apes did not do so, for some extinct animals are known to have been more highly organised than any of the living members of their class. The secondary reptiles possessed attributes not shared by their degenerate tertiary successors. The *deinosaurs* and *theriodonts* had structural peculiarities now only met with in the birds and the mammalia. In the same way some of the extinct higher apes may have possessed qualities not now found in any living species."

The lowering of temperature which, coming on through the pleiocene, reached its maximum in the pleistocene age, is marked by the gradual disappearance of the quadrumana. In the meiocene age they range as far as North Germany. In the lower pleiocene they have receded to the South of France; in the upper they are confined to Italy. Before the next age they have wholly gone (their presence in Gibraltar is due to reimportation). Did man exist in the pleiocene world when the bamboo throve and the pomegranate ripened near Lyons, although already ice-borne boulders were being deposited in the Norwich crag? The low forest land between the Faroes and Greenland, and between Norway and the Pole, was being submerged, allowing free passage to the icy currents; there were stags and elephants, and a big-nosed rhinoceros and a hippopotamus specifically the same as our own. But, though this one species survives, Mr. Dawkins rejects the evidence for man's having then lived. Of the "fossil man" of Denise, near Le Puy, found in a volcanic tufa, "a victim to showers of ashes from a pleiocene volcano," he is doubtful whether the deposit was undisturbed. Of the skull found near Arezzo, eighteen yards below the surface, "the conditions of discovery are very unsatisfactory;" it was found after a slip in the sides of the railway cutting. The series of cut bones obtained by Mr. Lawley from the pleiocenes of Tuscany "seem to have been notched artificially. Now they are mineralised, and so hard that they could not be scratched with any stone implement. But it is not to my mind satisfactorily shown that they were obtained from undisturbed strata. . . . The mineralisation is, of course, no proof of antiquity: we know how rapidly deposits of sulphate of barytes have sometimes been formed in the wooden pipes of coal mines." It would have been out of the due order of nature for man to have been alive among a fauna of which every species save one has disappeared.

Even the cut bones of the early pleistocene at St. Prest, near Chartres, which French archæologists accept as undoubtedly artificial, Mr. Dawkins prefers, with Sir J. Lubbock, putting to "a suspense account." "There is no inherent improbability in it; but there is unfortunately some doubt as to the precise stratum in which the bones, which Sir C. Lyell thinks might have been gnawed by rodents, were found. The mid-pleistocene brings us to the brick earths of Crayford and Erith, in which only two flint flakes have up to this time been discovered. The big-nosed rhinoceros was not extinct; but with him and the hippopotamus, and two kinds of elephant, were associated in the Thames valley two arctic creatures, the musk rat and the marmot. Whether these two flakes are enough to prove the presence of man, whether they may not have been naturally produced, we will not inquire. The extreme rarity of human remains (if these be human) need not astonish us, for almost all early caves have been destroyed by denudation and by atmospheric influence in such a wholesale way, that only two, that at Oreston, near Plymouth, and one at Baume, in the Jura, in both of which have been found bones of the big-nosed rhinoceros, are known to exist. Mr. Dawkins rejects the so-called basket-work in the lignite beds of Düruten, near Zurich, believing these cigar-like sticks to be knots out of rotted pine trunks. The late pleistocene age contains "that obscure and complicated time called the glacial period." During it, also, river gravels like those of the Thames valley were deposited. It is in these that the oldest palæolithic implements are found. So long ago as 1690 one was dug up in Gray's Inn Lane, along with an elephant's bone. It was kept in the Sloane Collection and in the British Museum, and was at last found to be identical with M. Boucher de Perthes's Abbeville and Amiens flints. Others of these Thames valley flints have a history for which Evans's *Ancient Stone Implements* may be consulted. Acton has been one of the best hunting grounds for tree trunks, mammoth and hippopotamus bones; and chipped flints are found in its "high terrace" gravels. They have been obtained from the Thames bed at Battersea, &c., the conclusion being that "man was dwelling there while the gravels were accumulated high above the Thames level, as well as while they were being formed at and below its present level." To part of this we take exception. Of course the flints found in the Thames bed

may have been dropped in through ice-holes, or rolled from a distance, as those at Bemerton, above the bed of the Salisbury Wily, undoubtedly had been; and hence there is no certain proof in their being so found that those who shaped them were living when the gravel was being formed.

About this river-drift man, however, Mr. Dawkins has no doubt: "He was a savage, whose tools were principally for preparing skins. He threw them away when he had done with them, and he did not know how to grind them to a sharp edge." In our own southern rivers, in the gravels of the Manzanares, and of the Nerbudda, in Palestine (on a gravel bed between Mount Tabor and the sea of Tiberias), and in French gravels from the Somme to the Garonne, these implements are found; and nowhere in larger numbers than at Brandon and Thetford on the borders of Norfolk and Suffolk, not far from the scene of "Flint Jack's" not yet forgotten exploits.

Human bones are naturally of rare occurrence in rolled gravel in which even those of the largest pachyderms are often much water-worn. Mr. Dawkins believes in the fragments found at Eguisheim near Colmar, at Clichy-sur-Seine, &c. The pieces of skull seem to point to a long-headed race with *large brains* (identical, says Dr. Hamy, with those buried at Cro Magnon in the Vézère valley. "*The leg and thigh bones present characters commonly met with in skeletons of the neolithic age*, the *linea aspera* of the femur being enormously developed, and the tibia flattened." This river-drift man was present as man, and not as an intermediate form.

Was this river-drift man preglacial? He may have been, says Mr. Dawkins, for the mammals with which he is associated in France had existed in Britain before the cold drove them southward. But there is no proof of this, unless the Crayford and Erith lower brick earths are considered preglacial, and the two flakes found in them are held to be artificial. The "proof" brought forward by Mr. Skertchley (*The Fen Land*, by Miller and Skertchley, 1878) from his discoveries at Brandon, Mildenhall, &c., Mr. Dawkins holds to be very inconclusive. Professors Hughes and Bonney pronounce the strata in which Mr. Skertchley's implements were found "not to be of clearly ascertained inter- or preglacial age." A little later, man was undoubtedly living in the same neighbourhood. In the Ouse valley there is a series of river gravels largely made up of

materials from the destruction of the boulder clay through which the valley itself has been hollowed. The river gravels therefore are later than the boulder clay; and some of the implements found in them are made of ice-borne quartzites.

The wide range of these river-drift men leads Mr. Dawkins to infer that "for a very long period man was in that stage of culture;" for it must have taken a long time for wandering tribes to spread from Central Asia to Southern England. He thinks "they cannot be referred to any branch of mankind now alive, and they are as extinct among the peoples of India as among those of Europe." He holds them to have been most probably different from the cave men whose remains are found *in a limited area in Europe* and whom he identifies with Eskimos.

In the caves, for instance, which he and the Rev. J. M. Mello discovered at Cresswell Crags, near Worksop, he distinguishes the remains of two races of men—those in the lower strata (red sand and lower cave earth) the same as those of the river-drift men; those in the upper series—the breccia (stalagmitic conglomerate) and the surface earth—marking a much higher stage of culture, yet not advanced to what is called neolithic.

We do submit that this is building too much on a slight foundation. The lanceolate flakes, singularly like the flakes which may be picked up by dozens on Cornish moors, where the disintegration of the granite sets the quartz crystals at liberty, may be artificial; but the implements from the lower bed have a very non-artificial look. What seems to us the strangest thing of all is that, in the upper cave earth were found not only these lanceolate flakes, a needle and other bone objects, but fragments of Roman and *mediæval* pottery, and also teeth of the leopard and the sabre-toothed lion (*Machærodus latidens*). Surely it is unsafe to infer anything positive from deposits in which so many widely sundered ages are represented. Mr. Dawkins says, comparing Kent's Hole with his own discoveries in Derbyshire and Welsh caves: "When all facts are taken into consideration, it is difficult to escape Mr. Pengelly's conclusion that the two sets of implements represent two distinct social states, of *which the ruder was by far the more ancient.*" We demur to this; and it is almost the only statement made by this usually cautious writer to which we feel called on to take decided exception.

We cannot help noticing the graphic picture Mr. Dawkins draws of the movements of the palæolithic fauna, which he compares with those of bisons in North America, and reindeer over the tundra in North-east Siberia. "The magnificent ravine of the Wynnetts and the pass by Mam Tor from the Vale of Hope and Castleton to the plains of Cheshire and Lancashire evidently marks the route by which they passed to and fro;" and the fact of 6,800 good specimens (besides those thrown away) being found in a shallow hole (25 feet by 18) which was used as a drinking place, may be compared with the bisons five feet below the surface found drowned in a swamp along their line of march. These cave men were clever at drawing; in England the only specimen of their skill is a hog-maned horse at Cresswell, but the reindeer and emus, &c., in France and similar incised bones in Germany, are as spirited as anything done by the Eskimos nowadays. No traces of their interments are found; Mr. Dawkins thinks they had the same disregard for their dead which is shown by the Eskimos. And they have left no trace on the modern population of Europe, having been driven out by neolithic invaders before whom they fled with the same terror and defenceless hatred which the Eskimo shows to the Red Indian, before whom he has been retreating even during the last century, as the Indian pressed by the white man has been driven further north.

Coming now to neolithic times, Mr. Dawkins utters, we are sorry to say, an uncertain sound. He thinks the interval separating the pleistocene from the prehistoric period was long, for there were great changes accomplished in the mammalia and in the geography of Europe. At the same time, he confesses that the formation of a layer of stalagmite, which, in caves, commonly marks off one epoch from the other, is no measure of the interval; for whereas in Kent's Hole stalagmite has latterly been deposited so slowly that the date 1688 is only covered with a film one-twentieth of an inch thick, in Ingleborough Cave a stalagmitic boss has grown at the rate of one-third of an inch a year. He thinks the pleistocene period was "beyond all calculation longer than the prehistoric," for he is loth to believe that a valley could be cut down a hundred feet in any but a very long space of time. Whenever they came into Europe, the neolithic men are assumed to have been of the same (non-Aryan) race as the modern Basques,

dolichocephalic-occipital (the length being due to a development of the back of the head). Their jaws were small, and they were not prognathous. The language of the modern Basque shows their ancestors to have been stone-implement men: axe is "stone lifted up," *i.e.*, in a handle; pick, is "stone to tear asunder;" knife, "a little stone," &c.*

One point seems to us to demand consideration. During the neolithic period, Britain is represented as an island of much about its present form, save that the now submerged forests filled several of its shallow estuaries and coasts. Are we to suppose that the Basques, with their tame animals, had spread over here before the disruption, or that they came in after it? Mr. Dawkins suggests that they came over from the continent in their "dug-outs" with cattle and household stuff. We can hardly fancy this; and it is a historic fact, on the other hand, that the lake Flevo of the Roman geographers was finally converted into the Zuyder Zee by the storms of a single winter. We cannot see any impossibility in the sundering of England and France having been finished with almost equal rapidity.

And now, having given a brief sketch of what those most qualified to speak have to say on either side, we will follow B. C. Y. in his able summary of the arguments for man's recent origin.†

He begins with the case of Kent's Hole, and we hope all who are interested in the subject will study his able examination of Mr. Pengelly's mode of reasoning. They will, we feel sure, come to the conclusion that Mr. Pengelly has claimed for his so-called palæolithic remains an antiquity wholly unwarranted. The deposits do not require the time claimed for them; and the "finds," in several cases, seem to the impartial observer to be not artificial at all: "It is a venturesome thing to conclude that man lived on the earth and used tools at a remote date, because there are marks of collision on a rude stone found in the lower bed of a cave, especially when the bed in which it was found consisted principally of rounded pebbles washed in by tributary streams, in which *mêlée* they would be

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* It is remarkable, and bears on the whole question of the age of deposits, that these knives were used in certain ceremonies quite into the historic age. Flint flakes, too, are found in Romano-British interments, and even in Merovingian tombs.

† We regret we have been unable to find, in *Nature* or elsewhere, any summary of the proceedings of the Lisbon Congress of two years ago.

driven one against another." The non-naturalness or otherwise of these finds is, however, of no importance; for the association of the so-called implements with remains of domestic animals shows the beds in which they were found have been disturbed in comparatively modern times.

Another point is to be borne in mind. We sometimes look on the floor of Kent's Hole and other caves as covered with a regular series of superposed layers. This is by no means the case. At Cresswell the stalagmitic breccia thins out where the lower cave earth grows thick, and *vice versâ*, as if (says Mr. Dawkins), the breccia and the upper portion of the cave earth were contemporaneous deposits. This is still more notable in Kent's Hole. Instead of "two floors of stalagmite, five and twelve feet thick, with a bed of cave earth between them," we find the cave earth thick at the entrance, then thinning out and entirely disappearing, so that the two stalagmites rest immediately on one another, except where here and there is found a patch of the earth. This would point, not to slow deposition of an even layer, but to the washing in of earth during a flood which may have been the work of a few days. Of course, our author does not fail to make use of Mr. Dawkins's admission that the so-called implements are found in all the beds, so that, if their position in the red-sand bed proves their early date, their occurrence in the surface soil equally proves that they are comparatively recent. Implements of the rudest type were, in fact, found at the surface in such numbers as to suggest to Mr. Mello a manufactory of them. Our author believes they were tools used for rough work (even as Red Indians who have iron still prefer using stone scrapers for their skin-dressing) by the same men who also used the delicate flint borers and the trimmed flakes, and who had come in contact with Roman civilisation. There is (by Mr. Pengelly's own confession) the same mixture in Kent's Hole. If everything followed in order, first the rude implements with extinct animal remains, then the more finished tools with a mixture of extinct and existing mammalia, then undoubtedly neolithic implements and bones of domestic animals, the case would be clear. Instead of this, Mr. Pengelly, lecturing at Manchester, said he took teeth of four extinct animals (among them the *tichorhine* rhinoceros) out of the upper surface of the granular stalagmite floor, *above the works of skilful artificers* and jutting up an inch in

relief, with at most not more than an inch and a half of the stalagmitic matter formed round them. Nor is the case for man's antiquity strengthened by finding bones of extinct animals along with his implements; for the cave lions at any rate certainly did not die out early, but lasted on to recent times. The age of all remains, human or animal, must be determined by the conditions of the bed in which they were found; and here we have both bones of extinct creatures and so-called flint implements found in the surface earth. But for the guarantee of illustrious names, the absurdity of assigning an immense antiquity to a flint flake found along with a tooth of *machærodus latidens*, and also with a bit of Samian ware, would be transparent. The Samian ware speaks for itself. Even if it came into the island before Julius Cæsar's invasion, it cannot well be more than 2,500 years old. It is historic; how then can the associated flint be palæolithic? As for the tooth, it may have been an amulet, passed on from age to age, and from far-off lands (tigers' teeth are preserved in that way in India, and the specimens of jade in the Swiss pile dwellings show the immense distances over which ornaments travelled in early days); if not, either this sabre-toothed lion lingered on till comparatively recent times, or the whole of this surface deposit was washed in by some flood, and therefore it tells us nothing as to the antiquity of its contents.

The hard and fast division of ages into stone, bronze, &c., has long been given up. Not only do they run into one another, but long after the introduction of the newer implement the older stands its ground. Stone mauls were among the Anglo-Saxon weapons at Hastings; stone hammers were used by the Germans in the Thirty Years' War, by the Irish in the wars with Queen Elizabeth (*Chambers's Cyclop.*, Art. "Bronze"). The Cornu-Britons used urn-burial (by cremation) as late as the Emperor Tetricus, one of whose coins was found in an urn in an undisturbed barrow at Morvah, near Penzance, the urn being (as usual) inverted, and the mouth placed on a flat stone, so that the coin could not have dropped in from above. So in Brittany, in a dolmen, which the explorers were sure had never before been opened, were found, *two feet below* the usual deposit of flints two statuettes of Latona and a coin of Constantine II. Just as the presence of flint flakes (which one Cornish antiquary, perplexed at their occurrence in comparative

late interments, calls "strike-a-lights") is no proof of antiquity, so the use of iron is no warrant for civilisation. The negroes of Southern and Central Africa are not only workers in iron but make excellent steel, and have done so from the earliest times; yet in other respects their culture is not higher than that claimed for neolithic man. On the other hand, among the highly civilised Assyrians, stone arrow-heads are found, and "from a sun-dried mound near Bassorah the British Consul, Mr. J. E. Taylor, obtained two taper instruments of chipped flint which would have passed without hesitation as drift implements (B. C. Y. p. 79). Mariette Bey, too, testifies to the frequent occurrence of worked flints in Egypt; they are always found on the surface, and some are clearly as late as the age of the Ptolemies. In the United States, where what we seek in caves and mounds is going on before men's eyes, "drift implements," undistinguishable from those of the Somme valley, are in use along with polished (neolithic) specimens.

The case then stands thus. Thanks to Mr. Dawkins we have got man down to the comparatively late epoch of the ice age; the suggestion which follows is, that that age was nearer to our own than is usually assumed, and that the earliest remains are not those of some race unrepresented now in the human family, but of the pioneers who first pushed into the unknown West, and whose culture is no more to be taken as a sample of that of their better circumstanced contemporaries than is the squalid barbarism of those cave-dwellers at Wick Bay whom Dr. Arthur Mitchell describes to be taken as a measure of the general social condition of that part of the British Empire. Of the power of degeneracy even in stationary populations, we see instances in the Egyptian Copt, and the Maya Indian of Yucatan. It is certainly more rational for those who do not altogether fling away revelation to believe that whatever low culture is really evidenced by the remains is just such as would naturally be the fate of those who wandered far from the great centres. The evolutionist must perforce go in for long if not measureless ages, during which man was struggling out of a series of nondescript forms between the brute and the human; but even he does not hold that his earliest men, or their successors, were developed into the men of to-day. Therefore, even to him, there is no need of such a vast period since man's first appearance.

The sum of all is, that "the two assumptions, the remote

antiquity of man and early man a savage, are not inscribed on the face of nature, nor found buried under the crust of the earth, nor written on the page of history, but are conclusions drawn, not unfrequently, from unsound or deficient premises, discredited by new discoveries, and rejected by some of the most cultured and logical minds in Europe and America." So writes our anonymous author; and it is notable that Mr. Mello, Mr. Dawkins's associate in his Derbyshire cave-hunts, thinks our present work is rather to accumulate facts than to dogmatise upon the few we have, and adds his strong conviction that, as it has ever been in the past, the more we know of the works of the Creator the more reason we shall have to see one and the same Divine hand in the Word inscribed on the face of nature as that which speaks to us through our sacred books.

It has always been the aim of unbelievers to discredit revelation by attributing to man a fabulous antiquity. What a flourish of trumpets there was when the French *savans* discovered the zodiac of Denderah! Volney, in his *Ruins of Empires*, heralded the downfall of Christianity as a consequence of thus finding its symbolism anticipated by an unknown number of centuries. The zodiac of Denderah has since been proved to be late-Ptolemaic; and now the credibility of the Bible is assailed with a flint flake. Chinese chronology and Indian astronomy were in turn brought forward, and in turn discredited; and now it is a chipped pebble in river-drift. Any weapon will do in such a cause: *odium scientificum* seems to think that the end justifies the means.

To mere theories, based on vague supposition, or evidence of the most imperfect and unsatisfactory kind, one ought not to be called on to adjust the statements of God's Word. That Word has, no doubt, been narrowed unnecessarily. There is no need to adopt the six or seven thousand years. At the time of the dispersion the threads of history were broken; "many of the names in the genealogical tables are plurals, and several have the formal termination used to designate a tribe." The Bible record of families and communities does little more than trace the line of Abraham. "An extension to eight or even ten thousand years would probably be no strain on the Bible chronology; and this writer," says B. C. Y., "can find no well-established scientific fact that requires more." This, of course, is the death-blow to evolutionism, as far as man is concerned; for ten times

that number of years could not suffice for his emergence from the brute and development into man, such as man now is. For such a purpose (as Professor Huxley admits) even the glacial period would be totally insignificant.

We have nothing that demands these vast time periods. The pile villages are of yesterday (were in full use after Roman times), the kitchen middens* are proved to be of no great age by the Roman remains found in them. Changes which were supposed to need long ages, under favourable conditions are found to be made rapidly. The Portuguese gentlemen of the Malabar coast, proud of their pure blood, have become as black as the Nairs; the same with the Jews of Cochin. To say nothing of volcanic upheavals, land rises or sinks from other causes at a rate far beyond that assumed by Sir C. Lyell when calculating the number of years since Snowdon was depressed and then upheaved. Under the city of Glasgow, for instance, at a depth of 117 feet, were found two canoes, in one of which was a beautiful *neolithic* axe-head. Since comparatively modern times, therefore, the soil there must have risen at least twenty feet. As to the rate of silt accumulation in the Mississippi delta, Professor Andrews, of Chicago, gives some startling facts; and Mr. Taylor (as we noted above) told the Geological Society that the force of water in the rivers of the glacial period was at least 125 times as great as at present. And then, for further shortening, we have catastrophes, of which Mr. Huxley remarks, they may be conceived as part and parcel of uniformity. "A clock is a model of uniformity in action. Its striking is essentially a catastrophe; the hammer might be made to blow up a barrel of gunpowder or to turn on a deluge;" and, though the analogy is only a partial one, it is sufficient to prove the writer's position.

M. Joly's *Man Before Metals* we have only placed along with the rest of our title-books because it gives a cheap

* We may remark that Mr. F. V. Dickens, in his review of *The Shell Mounds of Omori*, by E. S. Morse, Professor of Geology in the University of Tokio (1879), denies point blank that these mounds are of the same age as that usually, but wrongly, assigned to the Danish kitchen middens. They contain abundant human remains, as well as bones of the dog, not indigenous but introduced from China (*inu* Jap., *kinen* Chinese)—cf. *κύων*. He thinks they were undoubtedly Aino mounds; and these so-called aborigines inhabited that part of the island at least as late as the fourteenth century (*Nature*, Feb. 12th, 1880). It is fair to say that in the next number of *Nature* this statement, as far as the Ainos are concerned, is disputed by Mr. Sigiura, a Japanese resident in London.

summary to those to whom costly works, like Mr. Dawkins's, are inaccessible. It is also well to know what is the state of feeling on the matter among Continental *savans*. The Abbé Bourgeois' flints, then, were universally discredited at the Brussels congress ten years ago; and, despite M. De Mortillet's able arguments in their favour, nothing has since transpired to give us confidence in them. They do not even convince M. Joly, strongly biassed as he is on the side of man's great antiquity. His book, a popular summary of the question from the opposite point of view to that which we have been advocating, may well be read along with Mr. Southall's popular treatises. The latter part of it, "Primitive Civilisation," is independent of time theories, and gives a very interesting and comprehensive view of the whole matter, though we must protest against the assumption that kitchen middens belong to the remote past because those who made them grew no corn, and had few or no domestic beasts. It is certain that in kitchen middens Roman remains have been found, showing that their makers, whether savages or not, lived well within historic time.

One very curious chapter in M. Joly we do not remember to have seen elsewhere in English. It is an analysis of M. Broca's pamphlet on *Cranial Amulets*, obtained by trepanning living subjects,—young people afflicted with epilepsy, it is imagined; such crescent-shaped fragments being supposed to ward off the disease. There is a good deal of assumption in all this; and it has no direct bearing on our subject, for the trepanned skulls belong to neolithic interments. But it is a very interesting subject of speculation, especially when we take in its bearing on the belief in an after life—for the trepanned skull, when the subject died, was always provided with a bone crescent like that of which it had been robbed.

The rashness of geological chronologers, by the way, is well illustrated by M. Joly's acceptance of a statement that "at New Orleans an entire human skeleton was found buried beneath four ancient forests, to which Dr. Dowler attributes an age of 57,000 years!" Yet, ready as he is to mention such vague and flimsy rumours, even M. Joly does not put faith in the long array of figures put forth by some calculators. "We are far," he says, "from reposing blind faith in these rash, or at least premature, calculations. . . . Since science is as yet unable to determine the precise

dates of events which took place in the earliest times of Egyptian history, since scientists tell us that fifty years ago not a word of this history was known, is it rash to endeavour to reconstruct as a whole the early archives of the race, and to believe that we possess all the records indispensable for so difficult and so gigantic a task?" His closing words, too, must not be forgotten—that "quaternary man was man in all senses of the word anatomically, intellectually, and morally."

Of course his book is far inferior in picturesqueness to *Early Man in Britain.* We miss the glowing description of Phœnician enterprise, of the distribution of amber along the old trade routes, of the hoards of the bronze-smith found in France, of the worship (for Mr. Dawkins believes in it) at Stonehenge and Avebury. But of the actual handicrafts of early man, the pottery, the fine arts, &c., Mr. Joly gives a fair picture; and his constant collocation of New Zealand stone axes with neolithic weapons of the same kind, of South Sea island fish-hooks with those found in the caves, is valuable for our purpose. It reminds us that the stone age is still extant; and that therefore there is no such necessarily vast gap between it and modern times. *Moses and Geology*, by Samuel Kinns, Ph.D., has some good remarks on this question of man's antiquity; but we must close a subject the great importance of which has led us to treat it at extra length. We have striven not to dogmatise, but to take the reader to the original sources on both sides, and to put before him the question, Is this overthrow of all beliefs, this giving up of everything that we find in Scripture, demanded by scientific facts? We think the answer of every fair-minded man and woman will be "Surely not." Let us, therefore, be content to stand in the old paths, and not to rush wildly after what will probably prove a delusion.

One word in conclusion. We said the question was important. So fully is its importance recognised by the advanced party that Professor W. S. Duncan made not long ago (in *Nature*) a strong appeal "for a gigantic combined effort to be made by all naturalists and all lovers of truth, to attempt in a downright earnest manner its solution." It is no use looking, he argues, for the missing link in deposits later than pleiocene, "for real man has been found in the preglacial and pleiocene deposits, both of the Old and New World. Anthropomorpha (he says) have been

found in meiocene strata; so that it is there we must look, and (he adds) if the matter was taken up with as much earnestness as has been brought to bear on Assyrian or Palestine explorations, success would, no doubt, have been achieved." He limits the inquiry to the Old World, no superior primates having been found in the meiocene beds of America; and he conceives the line of migration of the anthropomorpha to have been from China through Northern India westward; and the meiocene beds along this line he proposes to examine. Of course, he begs the whole question; but his vehemence proves how important the matter is felt to be by the other party, as well as by those who think with us. In conclusion, we urge on our readers not to be led astray by supposed facts and by evidence put forth, no doubt, in good faith, but which, from the nature of the case, cannot be conclusive. Mr. Dawkins's sympathies lead him in the direction of long periods; but he is cautious, and he has had personal experience, such as falls to the lot of few, of the difficulty and uncertainty of cave hunting. His words, therefore (*Early Man in Britain*, p. 229), may well be taken as a warning to place "to the suspense account" any discovery at which a man of tried skill and knowledge was not present, and where the undisturbed state of the strata is open to the least doubt. He says: "Those experienced in digging caves know well how very difficult it is to separate the contents of two different ages lying together in the same place, and frequently mingled together by previous diggers as well as by the burrowing animals." With this caution we close our remarks on what is undoubtedly one of the questions of the day.

ART. VI.—*Wesley's Designated Successor; The Life, Letters, and Labours of the Rev. John William Fletcher, Vicar of Madeley, Shropshire.* By the REV. L. TYERMAN, Author of "The Life and Times of the Rev. Samuel Wesley of Epworth," "The Life and Times of the Rev. John Wesley, M.A.," "The Life of the Rev. George Whitefield, B.A.," and "The Oxford Methodists." London: Hodder and Stoughton. 1882.

OF all the remarkable personages that figure in the history of the great Methodist Revival, none has taken a stronger hold on the affections of its adherents, or been more permanently enshrined in their memories, than John Fletcher. His relation to the movement was altogether unique and peculiar, and the influence he exerted on his contemporaries and on the succeeding generations of the people called Methodists such as to assign him a place in their veneration and esteem hardly, if at all, inferior to that of the "first three." Certainly, the Wesleys and Whitefield alone take precedence of him, and even they rather on the ground of priority than of superior claims either to our spiritual sympathy or intellectual homage. He had no part, we need scarcely say, in the origination of the movement. Born in 1729 in a remote Swiss canton, he was still a child when the Methodist leaders opened their campaign against the ungodliness and vice of a degenerate age. Nor did it seem at all likely that the ranks of their coadjutors would be reinforced from such a quarter. Cradled amid the aristocratic surroundings of a family of noble descent, and manifesting at an early age a strong bent towards his father's calling, the military profession, no human foresight could have predicted the career to which he was providentially destined, or descried in the high-spirited and mettlesome youth the lineaments of one of the meekest and most devoted servants of Christ of his own or any other age. Such transformations, however, were not uncommon in those days: perhaps if we could rightly read the story of the lives around us, we should have to add they are not uncommon now. He who

touched the heart of Selina, Countess of Huntingdon, and made her a pattern of saintship instead of a leader of fashion, who at a later date led John Newton from the deck of a slave vessel to the pulpit at Olney, also directed the youthful Fletcher, disgusted with the failure of his martial projects, to the shores of this country, brought him within the sphere of evangelical influence and attraction, shaped a new ideal for his lofty aspirations, and called forth his best energies in the exercise of a ministry of unsurpassed fidelity and zeal.

The relation he sustained to Methodism bore the same stamp of a providential ordination as the mode of his introduction to it. No other of Wesley's sympathisers so thoroughly identified himself with the spirit and genius of his enterprise and yet retained so completely his personal independence. No other owed so little to the immediate teaching of the master mind, and yet did so much for its establishment and perpetuation. No other by the majesty of his character and the brilliance of his writings gained so widespread a fame among the Methodist people, and was at the same time so little known to them in his bodily presence. More warmly attached to the Wesleys both by community of view and sympathy of spirit than any other ordained man of his age except Perronet, he did not, as Dr. Coke did at a later date, give himself up to the toils and hardships of an itinerant life, but contented himself, like Grimshaw and Berridge, with imitating, on a scale compatible with the engagements of a settled charge, the self-denying labours of his more adventurous brethren. Fletcher was at once a model Methodist and a model Anglican clergyman, uniting in a wonderful degree the catholic and world-embracing zeal of one with the laborious pastoral efficiency of the other. His quarter of a century's incumbency of a neglected country parish, like that of David Simpson in a thriving borough, demonstrated for all who had eyes to see and ears to hear to what insignificant proportions the question of priestly prerogative and canonical regularity may be reduced when the wants of perishing men are surveyed and ministered to in the spirit of the Gospel of peace.

The appearance of Mr. Tyerman's biography forms a fit occasion for some notice of the character and genius of this excellent man, although the book itself adds little to our previous knowledge, beyond some hitherto unpublished

letters and documents, and in no way modifies or fills out the received estimate of him. Mr. Tyerman somewhat underrates, as we think, the task of the biographer, and in the same proportion overrates the powers of the ordinary reader of biographies. "In such publications," he says, "I am only desirous to see the man, not the artist's drapery. I want to know his doings, sayings, and sufferings, rather than to read philosophical discourses concerning them." The business of the artist, we need scarcely observe, is something more than to arrange the drapery of his figure: his most important function is to portray the figure itself. To do this requires not only an accurate representation of every part, but a combination of all the parts into a consistent whole, and, what is far more difficult, the infusion into the whole of such varied and harmonious expression as shall remind beholders of the living reality. The biographer has one advantage over the artist upon canvas, viz., that instead of a single picture it is a series that he is called to paint. But then it is a series extending over a whole lifetime, and in which the outlines of one melt, or should melt, insensibly into those of another, as in a succession of dissolving views. Unless such a series of presentments be attempted, the man is not placed before us. His "doings, sayings, and sufferings" must, of course, be exhibited, but always with an eye to some special effect, and not in such fulness of detail as to destroy the possibility of any effect at all. A mere chronological arrangement of facts and dates will not suffice for this. Not that chronological order need be sacrificed. That always lends itself to artistic treatment, since the human faculties follow a rational development, and the circumstances of all but the most monotonous of lives admit of picturesque grouping. But there are many problems suggested by the doings, sayings, and sufferings of the subject of a biography to which they do not spontaneously supply the answer. The question, "What happened next?" is far from being the only one the mind delights to propound to itself. Why this happened rather than that, how this bore upon that, which were the most important links in the chain of causation that ran through this man's existence, and what gave him such an ascendency over the minds of his fellow-men, all these are thoughts that force themselves upon the attention of every reader; and the business of the biographer is to assist him.

Having said so much, we must say a little more, or run the risk of being misunderstood. We have been criticising Mr. Tyerman's conception of his task, not the manner of its execution. In depreciating his office, he has very needlessly depreciated himself. His working rules are better than his abstract principles, and his performance outruns the limits of his promise. He has served a long apprenticeship to biography, which he has attempted on a scale that would have appalled most men. He has ransacked every available source of information, traced and explained every important allusion, digested his heterogeneous materials into compact and intelligible order, exercised a wise judgment as well in repression as expansion, and accompanied his extracts everywhere with a running fire of acute and original remark. All this he has done in such a way as to deepen in the readers' mind their reverence for Fletcher, and certainly not in any degree to mar the favourable estimate they had previously entertained. And if he has generally trusted too much his readers' powers of assimilation, and trusted too little his own powers of effective idealisation, let us remember how rare the character he strives to depict, and let us honour the modesty that has secured the portrait from a far worse evil than mere sketchiness, the evil, namely, of gorgeous exaggeration and elaborate self-display. This is in short Mr. Tyerman's best biography, and one which will only add to, and not detract from, its author's well-earned fame.

Availing ourselves of the author's help, let us endeavour, with some share of his modesty, to pursue a line of our own, and to point out, as fully as we can within the limits of an article, some of the chief characteristics, moral and mental, of a man whom Methodism has always delighted to honour.

It has not we think always been sufficiently acknowledged how strong was the mental fibre which in this man was woven by the subtle workmanship of grace into such exquisitely beautiful forms. Though the records of his early life are scanty, the indications of this are not wanting, and they occasionally reappear in after life. The deep humility of Fletcher, his soaring heavenly-mindedness, and the undefinable charm of his native politeness, all tended to conceal his strength. His very portraits, not excepting the one prefixed to the new biography, have done him some injustice. The "seraphic Fletcher" is a

title that reveals the sublimity of his devotion, but it does not express the human strength of will that wrought with the Divine attraction and instrumentally raised and sustained his ardent spirit at such a transcendent height. By a curious misadventure, the "free-will" element of his experience has been lost sight of in the superior glory of "free-grace." Indeed, the term "seraphic" itself is one that wants re-coining. The modern notion of the angelic falls far below the scriptural idea: it seems to be a growth of mediæval times, in which the deeds of knighthood and the graces of saintship—though both received the Church's blessing—were seldom conjoined in the same man. The widened range and compass of the emotional nature under the influence of Christianity has caused its concomitant discipline of the practical energies to be somewhat undervalued. But the truth is that Christianity proves its Divinity by its adaptation to every species of temperament, supplying the defects of a weak nature, and softening the asperity of a strong one. Such was its adaptation to the mind of Fletcher; but here a strong nature had to be controlled, not a weak one stimulated.

The best proof of our assertion is to be found in two of the most conspicuous features of Fletcher's course, and the ease and naturalness with which he exhibited them, we mean the steadfast courage with which he faced the pastorate of a brutal colliery population like that of Madeley, and the gallantry with which at the call of duty he descended into a still more terrible arena, and threw down the gauntlet to Wesley's furious Calvinistic assailants. These are subjects to which we shall return: we only advert to them now as showing the stern vigour of his character in strong contrast, and yet in perfect harmony, with the ethereal mysticism of the contemplative side of his nature. We see the same thing in the days of his youth developed both in bodily activity and mental toil. He was a bold and skilful swimmer, and an eager and successful competitor for university distinctions. The versatility of his mind was as remarkable as its vigour—the one is often the sign of the other. The ministry was first proposed as his future calling, but, shrinking from that on account of its moral responsibilities and doctrinal bonds, he turned his thoughts to military studies and prosecuted them with ardour and success. A certain headstrong wilfulness determined his self-expatriation and his future lot in life. His mili-

tary projects not meeting with the approval of his parents, and a quiet life at Nyon not being in harmony with his predilections, he set sail for England to try his fortunes in a foreign land. And when a few years later he became acquainted with the nature of the movement which was attracting the attention of the whole English nation, his position as tutor in a wealthy family of some note did not hinder him from choosing the unfashionable side and throwing himself heart and soul into the movement.

We have made these observations because in any attempt to estimate a man's character it is of the highest importance to show what were its natural features independently of the influence of circumstances, the refinement of culture, and the renovation of grace. In Fletcher it is manifest that grace made conquest of an original and powerful mind. His religion was not an heirloom from a pious ancestry, a good deposit committed to him as a most sacred treasure, to barter which for worldly advantages would be disloyalty to noble traditions and disobedience to parental injunctions. His early seriousness was proverbial, but it does not seem to have sprung from enlightened religious convictions, early instilled and carefully nurtured. The moral law was enforced, and the forms of religion observed, but his "infancy was vicious and his youth much more so," words intended probably not to hint at anything like immorality, but which do describe the ungodliness of an unregenerate heart. From a survey of his early life, so far as it is known, any ordinary observer of human nature might have discerned the promise of great things, and might have predicted a career of progressive worldly advancement. But the most acute observer could not have discovered the Divine purposes that were to be accomplished in him, or the manner in which they were to be wrought out.

To these we must now direct our readers' attention. The first few years of his life in this country, passed in obscurity, gave no indication of what was to follow. His aim in coming hither at all does not seem to have been very definite: to learn the English language is the only motive assigned. For this purpose he put himself to school at a Mr. Burchell's, at South Mimms, near Hatfield, and afterwards, upon his removal thither, at Hatfield itself. Fletcher's aristocratic connexions appear to have been of service here in introducing him to some of the first families

in the neighbourhood, and "by his easy and genteel behaviour he gained the affectionate esteem of all who knew him." But he did not mingle in the fashionable follies so prevalent in those days; on the contrary, the early seriousness which had worn away during his residence at the Geneva university now reappeared. "All this time he had the fear of God deeply rooted in his heart." The occasion of this deepened seriousness is not mentioned. It was not owing to the influence of his fellow-students, and we do not know enough of his instructor to attribute the cause to him, though his attachment to Fletcher is a good sign. It seems probable that the disappointment of worldly ambition, followed as it was by an entire change in circumstances and surroundings, was instrumental in reviving early impressions. He was a stranger in a strange land, and the comparative seclusion of the Hatfield academy would be favourable to reflection and prayer. After eighteen months spent in this way, he obtained an appointment as tutor to the two sons of Thomas Hill, Esq., of Tern Hill, Shropshire, an engagement that lasted until their removal to Cambridge. Mr. Hill, being a member of Parliament, was accustomed to spend a considerable part of every year in London, and to bring his family with him. Fletcher, of course, accompanied them; and accordingly for the next few years, *i.e.*, from 1752 to 1760, his time was divided between town and country, though perhaps the larger portion of it was spent in the country.

The position in which Fletcher was now placed was not in itself favourable either to godliness or to great intellectual development. Not that anything occurred in his dealings with his patron that was to the disadvantage of either. It is plain that from the first Fletcher won the respect and confidence of the family, and if his mode of life gradually moulded itself on a severer model than theirs no objection was made on that account. This liberality of sentiment, so rare in those days, was exceedingly honourable to Mr. Hill; still more, on the other hand, was Fletcher's independence honourable to him. Each took a proper view of his relation to the other: the duties of his office being discharged, the tutor was at liberty to follow his own inclinations. Many would have turned that liberty to a very different account, and would have regarded their connexion with such a family as a step to worldly advancement, if not a means to all kinds of

foolish self-indulgence. Fletcher embraced the leisure thus afforded him for the purposes of study and devotion. And so the cramping effect of a constant intercourse with young and immature minds, an evil to which all teachers are liable, was obviated. At the same time, the conversation of a family interested in public affairs, the journeys to and from the metropolis, and the residence there during a considerable portion of every year, would be a healthful relief and corrective to a mind in danger of too great fondness for a recluse and sedentary life.

The decided bent to seriousness and devotion was manifested in Fletcher before he knew of the existence of the sect that was everywhere spoken against. But the ferment it was producing in every grade of society was too considerable to be long hidden, even from those least accessible to its influence; and to a man of Fletcher's intelligence and sympathies the first imperfect account of its strange doings was not likely to create prejudice, but rather to arouse interest and lead to inquiry. Accordingly, being on one occasion twitted with his resemblance to the Methodists, a people that prayed all day and all night, he expressed his determination to find them out, if they were above ground. He did find them out, adopted their principles, joined their ranks, and lived to repay his obligations to their teaching by services the value of which will be felt to the end of time. It was the genuine vitality of Methodism that gained it this new adherent. Not only did it scatter everywhere the seeds of life, it attracted to itself the life derived from other sources, quickening and nourishing it, and bringing it to a maturity that otherwise would never have been attained. Fletcher's course might have been outwardly much the same without the influence of Methodism—the service of the Church was then as now a natural sphere for a man of his turn of mind—but he would never have carried his hearers beyond the threshold of the temple of truth; both he and they would have remained in the outer court, but for the flood of light poured upon him by the Gospel which the Methodists proclaimed and the trumpet notes of its invitation to enter the holy place.

The manner of Fletcher's call was not, however, such as the figure of the last sentence would suggest. At least we have no record to that effect. Many of Wesley's

coadjutors, notably John Nelson and Thomas Maxfield, were the direct fruit of his own preaching: they heard the sound of the trumpet, were alarmed for their safety, and passed at once from death unto life. Fletcher's conversion was of a different order. Like Wesley's own, it involved a process of intellectual conviction, resulting in a complete reconstruction of his theology, or rather a vivifying of its hard, dry forms. The difference between morality and spiritual life was never more marked than in Fletcher's condition before and after conversion. All his relations to God and his fellow-man were seen in a different light as soon as he had obtained correct views of the nature of saving faith. The structure of good works he had been for years laboriously erecting fell at once, and he saw that he had to seek for mercy at the hands of God on precisely the same grounds as the chief of sinners. The accounts of his conversion, both as traced step by step in his journal and as contained in a letter addressed to his brother in Switzerland about the same time, are exceedingly instructive. In the one we see the struggle while it is yet in progress, with all its hopes and fears, its ups and downs: in the other we have a picture of the whole field of battle, drawn with exquisite skill and presented in a light favourable to contemplation and study. In the one are portrayed the shifts and artifices by which Satan would hold the soul captive in ungodliness, till one by one they are found to be mere refuges of lies: in the other the true principles at issue in every such encounter are graphically delineated and their inevitable consequences are pressed home.

In the spiritual letters that follow, the first experiences of a Christian until firmly rooted in the knowledge of God, are also brought before us. They discover to us a soul aflame with love and zeal, and at the same time steeped in humility, their candid disclosures of temptation and victory adding a life-likeness to the delineations which we should have been sorry to miss. So ingenuous, indeed, are the confessions of occasional gloom and despondency, that we have need to remind ourselves of the testimonies of others concerning Fletcher's whole-hearted devotion from the very commencement of his spiritual career, or we should hardly make full allowance for their self-depreciatory tone. His intercourse with some of the most spiritually minded of Wesley's followers in London was remembered by them,

long years after, as among their most precious privileges. It is Fletcher's hand alone that supplies the shadows of the picture, and they are just deep enough to give the impression that though the revelation of the Son of God was one of unusual brightness and effulgence, yet in him, as in other men, there was a difference between the glory of the dawn and that of the unclouded noonday. Fletcher's sorest temptations occurred, as was natural, during his retirement at Tern. Cut off from fellowship with the people of God, and debarred by the peculiarity of his position from much opportunity of exercising his gifts, his ardent spirit could not but chafe under the restraint imposed upon its energies, and the mental conflicts that ensued were severe.

What he wanted was a suitable sphere of action, and it was not long before such a sphere was presented. The call to the ministry, heard many times but not heeded because it was doubtful whether it came from God, became clear and imperative, and it was obeyed with alacrity. So early as 1757, two years after his conversion, he received priest's orders in London from the Bishop of Bangor, and the same day hastened to assist Wesley in the administration of the sacrament. His first sermon also was delivered in a Methodist preaching-house. As opportunity offered, he exercised his gifts in this way to the delight and edification of the people. But when in Shropshire, his opportunities were few, owing to the disaffection of the clergy, the same fate overtaking him as had long ago befallen the Wesleys. Nevertheless, in the occasional fellowship he enjoyed with the Methodists of the metropolis, and especially with Charles Wesley, there was much to console him. His fame spread far and wide: Berridge and Lady Huntingdon reckoned him among their friends, the latter appointing him her chaplain. But the removal of his pupils to Cambridge in 1760 opened the way to the more active work of the ministry. The only question was where it should be exercised, in this country or Switzerland, and if the former, whether in connexion with Wesley or Lady Huntingdon, or in some pastoral charge. While he was deliberating, Providence was at work. The choice was offered him between Dunham in Cheshire, "a fine, healthy, sporting country," where "the parish was small, the duty light, and the income good," and Madeley, in which the conditions were exactly the reverse. Between two such

alternatives such a man as Fletcher could not halt. He chose the meaner and harder lot.

And now commenced that wonderful ministry which for a quarter of a century was to shed so glorious a light on one of the darkest places of the land, and to turn a Sodom of wickedness into a Shiloh of privilege and grace. A good measure of Fletcher's calibre is afforded by a consideration of the difficulties he here encountered and overcame. In common with all the Methodists, he had to withstand at once the brutal ignorance of the lower orders and the freezing formality of their superiors in the social scale. The religious—or those who called themselves such—and the irreligious were alike hostile to the doctrine he taught, and alike alien to the spirit that animated him. In this respect he only shared the reproach of his brethren. But his circumstances were different from theirs. They itinerated from place to place, and, though they never shunned danger and often faced the turbulent mob, yet had an advantage in their line of action not possessed by a man who was rooted to one spot. Banished from the churches, they took to the fields: denied one form of fellowship, they established another. Fletcher was tied to one neighbourhood, where there was not a single man of influence, clerical or lay, to stand by him; and the position he occupied, though perhaps legally impregnable, was exposed to a mode of attack not less galling, and even more dangerous, than that which called forth the prowess of his companions in arms. We do not say this to disparage in the smallest degree the men at whose feet Fletcher counted it an honour to sit: the sacrifices they made, the sufferings they endured, and the enterprises they dared, are the boast and glory of the eighteenth century, as it is its disgrace that they should have been necessary. But they fought on the high places of the field; their course was traced by sympathising thousands, and wherever they went they had palpable tokens that a day of grace had dawned. Fletcher was called to a different work and to a different form of heroism, less romantic, but not less exacting; humbler, but better suited to his character and temperament. Their campaigning was upon the grand scale: battle succeeded battle, and the scene of conflict shifted according to the fortunes of the war: he sat dow before one redoubtable fortress, dug his trenches and drov his parallels, and staked all on the issue of the siege.

There was enough to try him in the opposition of the multitude, in the calumnies, insults and injuries he had to put up with. But there were greater perils within, the peril of spiritual sloth and despondency, of seeking to please instead of to profit, of becoming a lord over God's heritage, of caring for tithes more than for souls, of suffering the light of the sanctuary to decline for want of oil in the vessel, and the power of godliness to be lost in the form for want of baptisms from on high; perils that no ministry is exempt from, but which are peculiarly incident to a one-man ministry and a sedentary life. Of the magnitude of these perils none had a deeper conviction than Wesley. We see it in his early refusal of Epworth, and it was probably confirmed by his failure in Georgia. And it may be that perception of these perils, no less than a sense of his own urgent need and the needs of the times, led him to dissuade Fletcher from a settled pastorate, and to exhort him to join his own band. And certainly experience on the whole was on his side. Some of his own helpers who had tried the experiment had left their first love. But if only one in a thousand was proof against these evils, Fletcher was certainly the man. He was aware of his danger, and knew where his strength lay. Unweariable prayer and unweariable activity were his double line of defence. To the open hatred of the populace he opposed the charm of invincible meekness, while their secret indifference he challenged by unconquerable zeal. If they would not come to church and hear the Gospel there, he carried it to their own doors, and was "ready to run after them into their pits and forges," so he might win a hearing for his message, and clear his soul of their blood. Not content with this, he extended his labours to the regions beyond, converted a wide tract of country into a Methodist circuit, and thus added the cares of a small diocese to those of an exhausting pastoral charge.

Gradually but surely these labours told. Opposition died away. For the first two years it was uphill work. The publicans were enraged with Fletcher because their craft was in danger. The more respectable tradesmen talked of turning him out of his living for "a Methodist, a downright Methodist." A magistrate threatened him with imprisonment; a multitude of the baser sort, headed by a papist, mobbed him with a drum; while another godless crew waylaid him with intent to do grievous bodily harm,

and would no doubt have effected their purpose, but that he was providentially hindered from falling into their hands. Their spiritual advisers, as usual, egged on the mob. One young clergyman pasted on the door of Madeley church a paper charging him with "rebellion, schism, and being a disturber of the public peace." And, indeed, if setting the laws of God above those of men be rebellion, and the holding of spiritual assemblies outside the church be schism, and the public denunciation of fashionable evils be disturbance of the public peace, Fletcher was guilty of all three. His tone was bold and uncompromising, because he could not be a partaker in other men's sins. His sermons displayed more of the terrors of the law than the graces of the Gospel, because he knew that the remedy would not be valued until the extent of the disease was made known. But this firm outspoken utterance, seconded as it was by the strong argument of holy living, soon made itself felt; and crowded congregations and loving societies rewarded the labours and cheered the spirit of this devoted man of God. And in 1764, Wesley, who till now had kept aloof from Madeley in order not to add fuel to the flames of persecution, paid Fletcher the first of a long series of visits, preached to a greater multitude than the church could hold, and summed up his impressions after his own laconic style in the following entry in his *Journal*: "Mr. Grimshaw, at his first coming to Haworth, had not such a prospect as this. There are many adversaries indeed; but yet they cannot shut the open and effectual door."

The disciplinary effects of this fiery ordeal on Fletcher's own mind and heart must have been very great. From the peaceful avocations and studious leisure of a tutor in a noble family he stepped at once, without the ordinary preparation of a curacy, into the position, not only of a professed teacher of truth and director of souls, but of a champion of evangelical orthodoxy in an arena filled with foes, where every movement was watched and a single false step would have been ruin. The strain thus put upon his energies was severely felt. There are traces in his letters of this. But there are no traces of fear, of repining, or of any other spirit than that of the purest compassion for the ignorant and them that were out of the way. He had counted the cost, and was more ready to lay down his life than his charge. Meantime, his knowledge of Divine things was enlarged, and his sympathy

with God's people in their various trials intensified and deepened. Many evidences of this are scattered through the letters quoted by his biographer. We may instance those to Miss Ireland and Miss Hatton, two ladies who, after severe illness, passed away at a comparatively early age, and one to the Countess of Huntingdon, on the occasion of a temporary affliction. But his most familiar outpourings were reserved for Charles Wesley. They show the same self-abasement as we noticed in his earlier epistles, but there are added the appeals for sympathy of one who is enduring a great fight of afflictions uttered in the ear of a sympathising friend.

As time went on, and he began to be more secure in his position at home, Fletcher was able to join, to a greater extent than before, in the evangelistic tours of his brethren. Several of these were taken at the instance of the Countess of Huntingdon; and the sketches of them given in this book furnish a vivid picture, both of the harmony that prevailed among the evangelical leaders before the outbreak of the Calvinistic controversy in 1770-1, and of the effects that followed their preaching.

Fletcher's ministry was as powerful as any. His sermons in Bath, London, and Yorkshire appear to have produced profound impressions. Not the least interesting feature of these excursions was their becoming the occasion of his addressing pastoral letters to his flock at Madeley, which overflow with the tenderness and zeal of a true shepherd of souls. One of the choicest results of this intercourse with spiritual friends was the composition of a treatise, in the form of a series of letters, "On the Manifestation of Christ," suggested by, and addressed to, the Countess of Huntingdon. They are included in the collected works, but without anything more than a conjectural reference to the occasion that called them forth, the editor, the Rev. Melville Horne, being only able to describe them as "the first essay of a genius afterwards so much admired." Whether they were ever sent to the noble lady for whose edification they were designed, is not known now: at least opportunity was not wanting. They are especially interesting, not only as the first elaborate production of the writer, but also as the only one written before the great controversy which was soon to engage his pen. Their tone is not polemical. True, errors are pointed out and exploded, but no personal element enters into the warp and woof of

the argument. The exhibition of the privileges of all true believers is the aim of the letters, and everything is made subservient to that. The friendship with Lady Huntingdon culminated in Fletcher's appointment as president of her Theological Seminary at Trevecca, which was opened in the year 1768.

And now the time was approaching when Fletcher was to serve the Christian Church in a way he never dreamed of, viz., as a defender of some imperilled doctrines of the common faith. We refer, of course, to what is known as the Calvinistic controversy. The commencement of it is usually assigned to the action of Wesley's Conference of 1770 in drawing up certain strongly worded "Minutes" in answer to the question, "Wherein have we leaned too much toward Calvinism?" The publication of these "Minutes" was the signal for an outburst of wrath on the part of the Calvinistic allies of the Methodist movement which Wesley was scarcely prepared for. The "Minutes" were drawn up in good faith for the use of his own fellow-workers, as a caution against Antinomism license. The extreme view that would be taken of them by his Calvinistic friends, notably the Countess of Huntingdon and her cousin, the Rev. Walter Shirley, he could not have foreseen; but had he done so, he could scarcely have acted otherwise than he did. Offence was taken, certainly; but Wesley was not to blame for this, unless it can be shown that it was wilfully and causelessly given. But in fact Antinomianism was, and always had been, Wesley's greatest hindrance; and the connection of this with Calvinism, as taught by many of that day, was close and indisputable. It was upon this ground that the Wesleys and Whitefield first disagreed in 1741; and in the Conference of 1744, the first of which there is any record, the same subject was largely discussed. There were special reasons for its renewed consideration in 1770. The previous decade had been one of great spiritual enlargement and increase; but tares had been sown with the wheat, and the evil effects had become apparent in many ways. It was time to take a stand, and hence the appearance of the document which gave so much umbrage. The course adopted by the Calvinistic party was one that did little credit either to their hearts or heads. The Countess of Huntingdon at once wrote to Wesley, informing him that until he renounced such doctrines she must exclude him from her pulpits. Later in the year Mr. Shirley sent a

circular letter to all the serious clergy, and to many who were not in orders, calling upon them to resort to Bristol at the time of the next Conference, in order to go in a body to its doors and demand of Wesley and his preachers an immediate recantation. The issue was a response on the part of some eight or ten individuals, and a two hours' debate in the Conference, in which Wesley took the safe ground that his meaning had been misunderstood, and, in common with all his preachers, except Thomas Olivers, signed a declaration to the effect that he still held fast the doctrine of justification by faith alone. Here the matter seemed likely to end, but for circumstances we must now call attention to, which bring Fletcher upon the scene.

It is plain that John Wesley in the eyes of the Countess was the only offender. Charles Wesley was not held responsible for his brother's mistake, and Fletcher had not been present when the minutes were drawn up. If any doubt, however, existed as to the course the latter would take, that doubt was soon dispelled. Lady Huntingdon demanded of all connected with her college that they should testify their adherence to Calvinistic tenets, and diminished Joseph Benson, then head master, for non-compliance. Fletcher felt that he could not continue his connexion with the seminary, and placed his resignation in her ladyship's hands. Calvinism had been one of the stumbling-blocks which barred his way into the Reformed Church while yet a youth, and it was not likely he would embrace it now. When he heard of the circular letter, he immediately set to work to reply to it, and his reply was in the printer's hands when the Conference of 1771 met. Nothing that transpired at that Conference called for the suppression of Fletcher's pamphlet. Without its publication, the meaning of what had taken place at that Conference would almost certainly have been misunderstood. The document signed by Wesley would have been regarded as a weak succumbing to clamour and a virtual renunciation of the Minutes of the previous year; and so his position with his own people, both as a teacher and ruler, would have been compromised. Wesley certainly made a mistake, not to our minds in suffering Fletcher's pamphlet to be printed after his agreement with the self-constituted representatives of Calvinism, but in coming to any agreement with them at all. To have declined courteously all communication with these men would have been the most pru-

dent as well as the most dignified course. The responsibility of this publication undoubtedly lay with Wesley, who knew too well the value of Fletcher's protest to lose such an opportunity of righting himself with his own people, and of dealing a more effectual blow than his own minutes at the evils which threatened his work. However that may be, the flood-gates of controversy were now thrown open, and Fletcher—the meekest man on the face of the earth—embarked on a stormy sea which has often swallowed up those who have ventured upon it.

In Fletcher the Methodist leader found a valiant champion. There was a chivalry about his conduct that wins our admiration. He was high in favour, not only with the Countess, but with all her following. Nearly all the evangelical clergymen of the day were Calvinists: Wesley, as the representative of Arminian doctrine, stood almost alone. It would have been easy for Fletcher to desert an unfashionable cause, or at least to maintain a silent neutrality. But he was no time-server: he did not understand the art of winning popular favour by following the currents of popular feeling. He could not bear to see truth distorted, and the advocates of truth put to shame. Least of all could he forget his personal obligations to the Wesleys. He therefore threw himself manfully into the breach, and for several years gave his best energies to the defence of the Gospel as he had learned it from the Word of God.

His qualifications for the task were as conspicuous as his nobility of spirit. A vicar of an important parish, in all respects save the obligations of friendship independent of the Wesleys, his motives could not be put down to interest or servility. His birth and breeding, and his social position in this country and his own, were additional advantages by no means to be despised. The fact that he was a foreigner, who had forsaken his own country for the sake of the religious privileges of this, would add something to the interest of his utterance, which would be also augmented by the facility of the utterance itself. Then his reputation both for learning and piety was already considerable; and at the age of forty-two, while yet full of vigour, none could object to him on the score of his youth. These things, together with the universal favour that he had hitherto enjoyed, must have caused some consternation in the camp of the adversaries, when they saw him step forth, as it were, from his seclusion and throw down the

gauntlet before the men who had too hastily supposed that their very presence on the field of battle had been enough to win the day.

But if the first appearance of the champion awoke some apprehensions, the manner in which he discharged his functions filled all hearts with dismay. Without any preliminary flourish of trumpets, he addressed himself to the work before him with all the ease of a practised combatant. There was a vigour and incisiveness about his tones that at once attracted attention. It was manifest that he possessed a thorough grasp of the subject with which he proposed to deal; that he was capable of combining a minute analysis of all its details with a comprehensive survey of its general principles; that he was a skilful logician, quick to seize the weak points in an antagonist's position, and bold to press his advantage to its farthest issues; that he could collect and array in formidable strength both scriptural and other testimonies, commanding the resources of both inspired and uninspired theology; that he knew how to strew the thorny paths of theological discussion with the flowers of a graceful though not gaudy rhetoric; that he could discuss some of the most perplexing problems that can occupy the human mind with a clearness that never laid him open to misconstruction, and with a felicity and copiousness of diction which in a foreigner were truly marvellous. Meantime, to the unprejudiced his spirit appeared as free from rancour as his mind from doubt. It was plain to all who had eyes to see that he had at heart his antagonists' good; that the blows he struck were aimed, not at their life or honour, but at that in them which was prejudicial to both; that he was tremblingly solicitous not to inflict a single pang beyond what was needful for this purpose; and that the uniform courtesy with which he addressed them was not the studied affectation of ill-concealed malice, but the honest expression of Christian love.

Of course, it was not to be expected that all this should be at once seen and acknowledged by friends and foes alike. Those whom he was compelled to oppose smarted too much under the lash of his arguments to perceive either the justice or the mercy of the punishment meted out to them. Nettled by the appearance of such a champion on a field from which they were about to carry off the honours, they returned to the charge, and sought to divert the attention of the public from the argumentative strength

of the vindication to the apparent breach of faith committed in suffering it to be published at all. This led to a continuance of the controversy, and one *Check* followed another from Fletcher's fertile pen, until by the time the last had appeared all the principal points in debate had been thoroughly handled.

To enter into the details of the controversy forms no part of our present purpose. The reader may find this done ready to his hand in the pages of Mr. Tyerman, who has devoted nine of his chapters to the subject. It was a very tedious but very necessary part of his work. Without some such clue, the connection of the *Checks* is likely to be lost sight of: with it their successive appearance is accounted for, their drift and bearing explained, and the personal allusions with which their pages are so plentifully besprinkled add interest to the perusal. Mr. Tyerman also supplies samples of the replies from the opposite side, enough to enable his readers to form an estimate of the relative strength of the contending parties, and of the spirit in which they severally wrote. To some extent this may be judged of from Fletcher's own writings, but Mr. Tyerman quotes some specimens that for scurrility of tone were beneath the notice of a principal in the strife. Even in the pages of this biography, a hundred years after they were penned, they excite surprise, nay more, they kindle indignation and rouse disgust. Meanwhile, their argumentative feebleness, compared with their opponent's strength, makes their authors appear like striplings fallen into the hands of a giant. Shirley, Toplady, Berridge, Richard and Rowland Hill, each in turn is tempted to assume the offensive, and each in turn is put to an ignominious silence. It soon came to be understood that, however strong his love of peace, and whatever he might be willing to concede for its sake, there was a clear line in Fletcher's mind between concession and compromise, beyond which line he could not go. And when it was found that he had resources that the most prolonged warfare could not exhaust, and a temper that the vilest abuse could not irritate, his adversaries grew weary of the conflict, and were glad to quit the field.

It is a melancholy picture that this controversy presents to us, but it has its lights as well as its shadows, though the latter undoubtedly prevail. The responsibility of beginning it lies with the Calvinists, and all the bitterness

was on their side. No doubt they misinterpreted some of Fletcher's expressions. His warm protestations of brotherly love they read ironically, whereas they ought to have known enough of the man to give him credit for being sincere. His playful sallies they took in sober earnest, and retaliated in grim rejoinders of which the malice was more obvious than the wit. The moral effects of certain doctrines, which he deduced with logical consistency and depicted with caustic vigour, they regarded as attached to their own characters, and resented as personal affronts. On their side controversy ran its natural course, and degenerated into rancorous recrimination, in which principles were forgotten, and the desire for victory supplanted the love of truth. Fletcher maintained his dignity, and never forgot what was due from one Christian brother to another. Indeed, we may say he was a model controversialist.

If our feelings are stirred even now as we think of this controversy, how much more those of the partisans who watched its actual progress. Other strifes were external merely, and served to knit the faithful in closer and closer bonds: this rent the seamless vesture, or rather the very body of Christ. Nevertheless, good was brought out of evil. The societies under the care of the Wesleys were firmly grounded in their attachment to the truths that Fletcher taught, and were henceforth unmolested by their brethren who belonged to a different school. The combatants themselves were reconciled. Fletcher had interviews with most of his former opponents, who, now that the veil of prejudice was lifted, saw his character in its true light and spoke of him in the highest terms of affectionate regard, one of the foremost to hold out the olive branch being the redoubtable Countess. One lesson to be learned from this painful story is undoubtedly that religious controversy is a momentous business, and, like marriage, "not by any to be enterprised nor taken in hand unadvisedly, lightly, or wantonly;" that unless some vital interests are at stake, it should be discreetly shunned; and that, when once begun, it should be conducted in the spirit of holy jealousy as well for the honour and happiness of the Church and its possibly erring members, as for the interests of the truth which it is sought to defend. The possibility of their being themselves in error should be remembered by all those who feel called upon to combat it: the necessary limits of all finite intelligence should be

a continual caution against dogmatism, and the proneness of human nature to idolise its own imaginations should check the full triumph of pride. There is a sense no doubt in which principles are to be preferred above persons, but it is quite possible for a man to misread the axiom. When he supposes he prefers principles to persons, it may be that he only prefers one set of persons to another; or one individual to another, and that individual himself. John Wesley is an authority on such a subject that most men will honour. There is a paragraph on this subject in the preface to his *Sermons*, written just before this controversy broke out, which has a peculiar force, viewed in connexion with that fact. "For God's sake, if it be possible to avoid it, let us not provoke one another to wrath. Let us not kindle in each other this fire of hell, much less blow it up into a flame. If we could discern truth by that dreadful light, would it not be loss rather than gain? For, how far is love, even with many wrong opinions, to be preferred before truth itself without love? We may die without the knowledge of many truths, and yet be carried into Abraham's bosom. But if we die without love, what will knowledge avail? Just as much as it avails the devil and his angels."

We will pass now from the controversy itself to the writings it gave birth to. The most important of Fletcher's writings owed their origin directly or indirectly to that controversy. With the exception of a short tract in 1758, and a sermon in 1759, the *First Check* was Fletcher's first publication. The Calvinist controversy lasted from its appearance in 1771 to the issue of *The Plan of Reconciliation* in 1777. The fertility of his pen during this period is astonishing. Besides the numerous works relating to Calvinism, these years produced the *Appeal to Matter of Fact and Common Sense*, and the *Vindication of Wesley's "Calm Address to our American Colonists,"* with one or two more political pamphlets. The whole occupy five volumes of the collected works, and more than half of a fifth, each containing on an average 450 pages. When it is remembered that the ministrations of the parish and of a wide surrounding district, were kept up with unabated vigour, it is manifest that only by a zealous redemption of time, and especially of the morning hours—Fletcher, like Wesley, was a very early riser—could such a literary feat have been performed. Yet throughout these voluminous pro-

ductions the writer betrays no sign of hurry, tedium, or exhaustion. The only works that he produced subsequently were the *Portrait of St. Paul* and the poem on *Grace and Nature*—both written in French while he was in Switzerland, and afterwards translated into English—and the pamphlets devoted to the Socinian controversy, which were published after his death.

The field covered by these writings is very wide. The theological portion of them, which forms the bulk of the whole, formally discusses some of the most important doctrines of Holy Writ—Original Sin, the Divinity of Christ, the Conditions and Extent of Salvation, the Christian Character—while many other doctrines are fully illustrated in the discussion of these. The most exhaustive treatises are, of course, those connected with the Calvinistic controversy. Never before in the history of the Church were the points at issue so clearly put, nor the scriptural evidence so fully stated. More profound disquisitions there may have been, as those of President Edwards: more popularly effective there have been none. The delicacy of the balance in which the Scripture testimony is weighed, and the extreme nicety with which the rival claims of free grace and free will are adjusted, is something marvellous. Free grace is honoured in ascribing all the merit of man's salvation to Christ's atonement, and all the power that effects it to His Spirit. It is much more honoured than in the predestinarian scheme by the inclusion of all within the range of its benefits, the glory that is taken from God's sovereignty being given to His lovingkindness. The extent of Christ's redemption in like manner is not limited by any understatement of the corruption of our nature, which is declared to be complete, while a quickening germ is said to be implanted in each man's heart, through that redemption, making his salvation possible. Thus hope is kindled in every breast, while all ground of glorying is taken away. Meantime, at the other end, the redeeming process is wonderfully exalted by the doctrine of Christian perfection, in which grace at once softens the rigour of the law and enables its fulfilment, thus again glorifying Christ in His redeemed subjects, and hiding pride from man. Similarly with the relations of faith and works. In our present justification before God, faith alone, itself His gift, is the condition and instrumental cause; but thenceforward works are a condition of our continuance in the Divine

favour, as being the necessary fruits of faith; and for the same reason they are the basis of our justification at the last day. Yet Christ is not robbed of His glory, since these works are but the fruits of faith, which is the gift of His spirit.

Such in brief was the scheme that Fletcher patiently elaborated from the teachings of God's Word. It harmonises all the parts of Wesley's system more thoroughly and satisfactorily than Wesley ever had time to do it for himself. It was endorsed by both the Wesleys, Charles having seen most of the manuscripts before they went to press, and John pronouncing the highest eulogiums. Fletcher's scheme has been accepted ever since by the Methodist body as one of the best exponents of their position as adherents of the Arminian creed.

Fletcher's *Appeal* is as remarkable for the descriptive powers it displays as the above-named for the argumentative. Not that this is wanting in argument: on the contrary, it proceeds in regular order and is an almost perfect specimen of method. But the proofs are drawn, not from Scripture, but from observation; and a more comprehensive survey of human nature as it is, was perhaps never made. The treatise, of course, provokes an inevitable comparison with Wesley's largest work, *On Original Sin*, which discusses the same theme, but in a very different manner, being first of all historical and then scriptural and dogmatic. They are both characteristic of the men. Wesley is terse, pointed, and vigorous, and yet at times anecdotal and humorous. Fletcher is diffuse and imaginative, deeply serious and impassioned. His effects in this essay are not those of a cutting logic, so much as of a tender, earnest appeal to the deepest feelings of the heart. His pictures are at times harrowing—too much so indeed for modern taste—to the emotions, but most healthy as a stimulus to the conscience, because drawn from scenes that lie open to common observation and true to the very life. While this was designed for the benefit, primarily, of those who lived in his own neighbourhood, and whom he wished to arouse to a deeper sense of their spiritual need, his *Portrait of St. Paul*, written in Switzerland, was proposed as a model first to the unfaithful pastors of his own country who were asleep at their posts, and then to Christians generally. All the features of his other writings are happily blended in it; and, indeed, it may be regarded as one of

the ripest productions of his pen. It enshrines at once his most comprehensive philosophy, his richest experience, his most matured views of Scripture truth, and his happiest controversial vein. Controversial it must of necessity have been, considering its object, but the discord of the personal element did not mingle with its faithful and animated strains. The *Vindication of the Christian Faith* and *Socinianism Unscriptural*, addressed to Dr. Priestley, Mr. Benson thought unfinished, and added chapters which have ever since been bound up with them. Mr. Tyerman thinks they were as much finished as the author ever meant them to be, and that in justice to both authors their several productions should be issued separately. The former of the two treatises is an excellent sample of methodical arrangement and sound scriptural exposition, while the latter betrays all the smartness of the most lively of the *Checks*, and shows that, even when almost *in articulo mortis*, the author's right hand had not "forgot its cunning."

Of the poem entitled *Grace and Nature* there is no need for us to say much. A translation by the Rev. Miles Martindale appeared some twenty years after Fletcher's death, but neither that nor the original has been since included among the collected works. The translation fills a volume of 352 pages, with the exception of 72 pages of notes. Embodied in it are two cantos on the Peace of 1783, and one on the blessings of peace in general, in which last the author makes a graceful retreat from the position taken up in the *Vindication of the "Calm Address,"* and wishes all sorts of prosperity to the now formally acknowledged United States. Considering that we have just passed the centenaries of these two events, the recognition of American Independence in 1782 and the Peace of 1783, it may not be inappropriate to quote an illustrative passage. It will serve as a good sample of Fletcher's powers as a poet. The reader will, of course, remember that it was written in an age when very different canons of taste were in vogue from those accepted now. Passages might have been selected that would need this apology much more than that given below. The one we have chosen has reference to the former of the two events above alluded to.

"Now, by no foreign policy controll'd,
High rank with sovereign princes patriots hold,

And, resolute, maintain unbounded sway
O'er provinces unpractised to obey.
Hence, free from warlike toil and stern debate,
These friendly rivals of a parent state
By growing virtues their descent shall prove,
Each liberal art aspiring to improve,
Till other Lockes and Miltons shall be born,
Ages remote to polish and adorn.
Meanwhile, by unabating zeal constrain'd,
With truth's mysterious volume in their hand,
They visit superstition's dark abodes,
And point barbarians to the God of gods:
What time, directed by the star of day,
With Anson urging their advent'rous way,
Their glowing course they now impetuous run,
Where the moor blackens in the sultry sun;
And now, at the bright portals of the east,
Meet fair Aurora in her purple vest;
Fixing their standard on remotest shores,
And bearing home rich tributary stores.
Happy, if jealous envy ne'er descry
Their spreading honours with malicious eye,
Nor interest beckon from their seats below
The furies that delight in human woe.
Intrepid Britons! from your happy isle,
Indulgent on their rising cities smile—
Behold your sons in awful senate sit,
With the united states beneath their feet,
And ceasing their first homage to constrain,
Yield up America's immense domain.
So, with his vig'rous sons a parent deals,
And while his heart with fond affection swells,
Gently relaxes his controlling care,
And bids them his divided fortune share."

Taken as a whole, Fletcher's works constitute the most considerable literary product of Methodism during the first half-century of its existence. Not that ability was wanting, but most connected with the movement had little leisure for this kind of work. Literature was not their calling. We do not forget, of course, what was done by the Wesleys. Charles's poetry was a contribution of priceless value. John's activity, both as a writer and a disseminator of other men's writings, was astonishing. The best history of the Methodist movement is still that which every reader of Wesley gathers for himself from his pages. Its doc-

trinal standards are found there. They furnish pictures of the England of the eighteenth century not to be equalled elsewhere. But they do not contain much of theological literature properly so called; they do not embrace any elaborate treatises on special doctrinal topics, except those on *Original Sin*, and *Christian Perfection*. To have produced such works would have required more leisure than the Founder of Methodism had at his command. To Fletcher the opportunity was given, and what use he made of it we have already seen. Of the permanent value of his work no thoughtful person will doubt. Isaac Taylor is quoted by Mr. Tyerman as passing a qualified judgment, but Robert Southey, a much sounder critic, and one whose impartiality will not be questioned, says that "the reasoning is acute and clear, the spirit of his writings is beautiful, and he was a master of the subject in all its bearings." Let any unprejudiced person sit down to the perusal of these volumes, let him remember the circumstances under which they were written, and the audience to which they were addressed, and we cannot but think that, if he have any critical judgment at all, and make any pretensions to that historical faculty which enables a man to estimate a writer by reference to the period to which he belongs, he will agree with Wesley in pronouncing him one of the finest writers of the age. And the popularity of his works is proof of their value: they are read more extensively to-day than they were a hundred years ago.

The arduous tasks thus imposed upon Fletcher shattered his health. Various excursions were taken to different parts of the country, including one long tour of eleven or twelve hundred miles in company with Wesley, but without any salutary effects. Wesley, indeed, says that during the journey he took with him his strength gradually increased, and expresses his belief that if he had only persevered a few months longer, he would have quite recovered his health. Wesley had unbounded confidence in horse exercise and continual change of air. In his own case it had wrought wonders, but it does not follow that it would have been as serviceable for Fletcher. Fletcher's illness seems to have been a providential means for bringing about a reconciliation with many of those with whom he had been at swords' points. In various parts of the country, but especially at Newington, near London, and at the house of Mr. Ireland, near Bristol, he had interviews with some of the leading

Calvinists, who thus came to understand his character better than they had done while the controversy was in progress. A noteworthy incident was Fletcher's visit to the Bristol Conference of 1777. He was then so weak as to be unable to walk without help: his appearance was that of a man dwelling in the suburbs of heaven, and his address to the assembled preachers left impressions never to be forgotten. To spare his friend's enfeebled energies, Wesley cut short the interview by a prayer of extraordinary fervency, concluding with the promise, "He shall not die, but live, and declare the works of the Lord," words that seemed to have their verification in Fletcher's subsequent recovery. All other means proving ineffectual, as a last resort, his physicians recommended him to try his native air. Fletcher had once before visited Switzerland, but this time his stay was much more protracted, lasting from 1778 to 1781. His strength gradually increased, and in the spring of 1781 he was able to resume his labours at Madeley. His absence was painful both to him and to his people, but it was the occasion of his writing some of the most tender and beautiful pastoral letters that were ever penned.

The same year saw his marriage with Mary Bosanquet, one of the most eminent saints of her own or any age. The three years of their union formed a fit close to a life of extraordinary diligence and devotion. Probably no home on earth ever enshrined more of true sanctity and blessedness than the Madeley vicarage during its joint occupancy by John and Mary Fletcher. The latter found in her new sphere a sufficient outlet for her benevolent impulses, and in her companion one who could sympathise with her holiest aspirations. The former found in his partner a true helpmeet, able to second his efforts for his people's good, enter into his projects, literary and other, aid his devotion, sustain his faith and hope by her own unwavering steadfastness, and at the same time minister to him all those temporal comforts of which he had been too long in the habit of denying himself to his bodily harm and loss. For deadness to the world, for self-denying charity, for close and uninterrupted communion with heaven, for transparent simplicity and integrity of spirit, and for all those qualities which cause the character of a saint to exceed in lustre the mere moralist as far as the glory of noon exceeds the twilight, such a

pair as John and Mary Fletcher perhaps never before walked the earth.

Of the remaining three years of Fletcher's life the principal episodes were his visit to Dublin in company with Mrs. Fletcher in 1783, and his attendance at the Leeds Conference in the following year, the former remarkable for its spiritual influence on the Dublin societies, the latter for his affectionate mediation between Wesley and those of his preachers who were aggrieved by being omitted from the hundred on whom Wesley's power was to devolve after his death. For the rest, these years were passed in the performance of ordinary duties and in the composition of his last literary works, of which mention has been made above. Some of his most valuable letters belong to this period: they seem to be the sweet overflowings of a heart surcharged with spiritual grace and blessing.

Sooner than any expected, the end came. The portrayal of it, by the hand of Mrs. Fletcher, is one of the most touching pictures in the whole range of Christian biography, a fit companion to that of Wesley's last days by Henry Moore. We have read it often, from our earliest years, always with deep emotion. The last service at Madeley church, which he could not be persuaded to relinquish, and in which he seemed to be visibly offering up his last remains of strength in the service of God and His people, the solemn communings of the death-chamber, the final manifestation which filled to the full a heart that had been so often enlarged to receive it, the sign agreed on with his faithful partner by which they should "draw each other into God" when he could speak no more, with the use actually made of it,—these and other circumstances serve to fix the scene indelibly upon the memory, and to give the impression of an Elijah-like translation to the realms of light. John Fletcher, died on Sunday, August the 14th, 1785.

Till within a few years of his end Wesley had wished that Fletcher should succeed him in the government of the societies, if he survived. Wesley's personal preferences for a monarchical form of government seem to have been as strong in reference to ecclesiastical as to civil affairs. And had they been carried out no man would have been fitter, morally and spiritually, than John Fletcher for such a post. But no single man could have stood in the same

relation to the Methodist societies as Wesley himself. The arrangement actually made, and the gradual development from that to the present economy, have as clearly stamped upon them the ordination of Providence as the birth of the movement itself. Fletcher's best memorials are the writings in which he defended and enforced the most vital doctrines of Christianity, and the life, now written more fully and clearly than before, in which those doctrines received the best practical exemplification that frail man may hope to show.

ART. VII. 1.—*A Popular Commentary on the New Testament.* Edited by PHILIP SCHAFF, D.D., LL.D. In Four Volumes. T. and T. Clark, Edinburgh.

2. *The Training of the Twelve; or, Passages out of the Gospels, exhibiting the Twelve Disciples of Jesus under Discipline for the Apostleship.* Third Edition, Revised and Improved. By ALEXANDER BALMAIN BRUCE, D.D. T. and T. Clark, 38, George Street, Edinburgh.

WE propose to consider the history of the interval between the Resurrection and the Pentecost in its relation to the Holy Ghost: a chapter of Biblical theology which deserves more attention than it has received. It will be seen that the forty-nine days or the sabbath of weeks have a very close connection with the event that closed them; and that their history cannot be understood save in the light of that connection. In fact, the two great divisions of the period which the Ascension separates may be best studied as paying their tribute to the Other Comforter: the former showing the necessity for His coming, and the latter the preparation to receive Him.

A superficial glance at the narratives would not suggest this. On the contrary, the first impression produced by the history of the interval is disappointment that the rich promise of the final Discourses is not fulfilled. The eve of the Crucifixion was very much if not mainly occupied with the promise of that Third Manifestation of God whose coming was a mystery not second even to the coming of the Eternal Son Himself. What the Lord had said in a great variety of forms was simply the most marvellous revelation concerning the Godhead that had ever been given: at least since the angel had told the Virgin that the Holy Being to be born of her was the Son of God. And the Revealer had linked the coming of this wonderful Person with His own departure and transitory return. Now with that amazing series of revelations still vibrating in their ears, must not the company of the Apostles when the Lord came into their midst have expected to hear the strain continued? And do

we not expect it? Rather, should we not expect it if we were not so familiar with the record as it is? But whatever might be expected, the fact remains that the entire history of the fifty days contains very scanty reference to the subject which had filled the Saviour's lips and the disciples' hearts before the sad hour when they forsook Him and fled.

When we look narrowly, however, we find there are two sayings which, like light shining in a dark place, qualify this statement of ours. They are very brief but very suggestive; each throws alone and both throw together a flood of radiance upon the entire narrative. One of them rules over the first period, the forty days of our Lord's gradual departure; and the other over the second period, that of waiting for the Pentecost. The former was spoken on the day of the resurrection, when the Lord taught by symbol and act the new manifestation of His presence that was to be: "Receive the Holy Ghost." The latter was spoken on the day of the Ascension when He bade His disciples wait for "the promise of the Father and the power from on high." These words are only like lights in a dark place. They only qualify the statement at the outset: they do not contradict it. Neither of them refers to the Third Person with anything approaching the distinctness of the paschal reference: His personality is still kept in the background; and still it remains true that we are left to gather the importance of the Interval in relation to the Holy Ghost from the promise that precedes and from the fulfilment that follows rather than from the events of the days themselves.

It will hardly be thought a forced or exaggerated generalisation if we say that the solitary reference to the Holy Ghost in connection with the Lord's Resurrection has a deep and universal meaning for the whole of the forty days. This will be more evident if we mark the place it holds in the record. Reading cursorily the accounts of the Resurrection, as we have them in the four narratives, we should not mark the pre-eminence of this particular narrative. But we are too apt to overlook the bearings of the several events in the perspective. This is specially the case in the history of the first day: the day of the Lord's reappearance. No one evangelist gives any hint of the wonderful fulness of life which was crowded into its morning and evening. It is only by collating them that we discover how active it was after the short absence from the world: that it was in fact the most fully occupied day in the whole ministry of Jesus. But it is only in St. John's

account that we discover the supremacy of the manifestation in which the Holy Ghost was breathed on the disciples. St. Matthew's glance is beyond Jerusalem; it reaches to the mountain in Galilee where the King of the Jews will crown Himself King of nations; and he pays no tribute to the first Christian day, or at any rate no direct tribute. Every one in his Resurrection chapter—even the Lord Himself—is but a herald of the distant assembly in Galilee. As to the great event itself, he limits his allusion to the by-plot between the elders and the watch. St. Mark gives a general summary, which embraces nearly all that took place: but in a compressed style, only hinting at what is elsewhere dilated upon, and, like St. Matthew, in such a style as to make the first day flow undistinguishably into the history of the forty days. St. Luke goes beyond his predecessors. He has the apostolic assembly in view; and our Lord's formal appearance in its midst; but at first it seems as if he had an eye and a pen for only one event of the after part of the day: one which however he has so described that criticism is silenced about any omissions. However, we see that the wonderful prelude of the Emmaus disciples is introduced only to introduce the congregation of "the Eleven," and "them that were with them." The journey to Emmaus, in which the Lord intercepted the two desponding disciples, was on the circuitous way to the little room in Jerusalem. St. Luke's account of the scene is very important, and shows plainly that it was not a brief appearance, but a long interview: the longest of the whole period of forty days, something corresponding to the long paschal communion before the "Arise, let us go hence" was spoken, and the type or earnest of the everlasting reunion reserved for a better state. By the time we have read St. Luke's account—inserting in it also one or two hints given by St. Paul in the Corinthian epistle—we find that the day of the resurrection was indeed in its spiritual vigour worthy to be called "the Lord's day." But St. John adds much to the narrative; and when we have by his help completed the record of the day, we perceive that it has no rival save Pentecost as a day of spiritual intercourse between God and man; and that even in the mere assemblage of events it is unsurpassed, probably unequalled, in the Gospels. There is no one day of the Bible, the diary of which is so filled up as this is: always supposing that the several visits of the women and the Apostles to the sepulchre are arranged in order as they should be and may be. But we must not forget the

point to which all this aims: that St. John has supplemented the other narratives at all points. In the forenoon of the day we have the affecting addition which links St. Peter and himself with the sepulchre, as well as the episode of the Magdalene and its ever-memorable lesson. As we read his new chapter we see plainly that as St. Luke's Emmaus brethren are only messengers to the Apostles, so this Magdalene is only a messenger on the same errand. St. John reaches the same goal which St. Luke reaches: the first great meeting with the Eleven. But St. John ends the whole with that breathing of the Holy Ghost which is the crown and glory of the day.

Before dwelling however on that let us take a swift glance at the details of this day of our Lord's new and supreme energy, as an unforced comparison of the accounts presents it to us. The mystery of the resurrection itself, wrought in secret, must be omitted: not a word is said on that subject, though nothing can be more exact than the exhibition of the results of what may be called a process. The stone rolled away, the linen clothes reverently laid by themselves, and the napkin for the head laid by itself, are all under the custody of the angels who wait for the visitants who are sure to come, some of whom indeed have never been very far away. The women were the first to visit the sepulchre in different parties: a fact which is proved by a collation of the accounts, each of the evangelists describing their visits under a distinct aspect. During the morning our Lord's own appearances were three: once to a company of women, whose worship He accepted, and whom He sent to remind the Apostles of His promise to see them in Galilee; once to Simon Peter, the details of which are buried in silence; and once to Mary Magdalene, whose worship He accepted, but restrained and made it the occasion of an important lesson. It is this manifestation which evidently occupied the chief place in the tradition of the Christian company, and the significance of which St. John made very prominent. While the schemers are contriving their iniquitous method of accounting for the absence of our Lord's body, the Lord Himself appears to the travellers who are bewailing their disappointment on the way to Emmaus. He expounds to them the Scriptures concerning Himself; and then, when the evening had come, pays His first visit to the company of His Apostles as representing and surrounded by the body of the disciples. In their midst He gives full proof of the verity of His resurrection, continues the discourse which had occupied the journey to Emmaus, silences the doubts and fears of

His disciples, and gives them the best of all proof that He had risen from the dead by breathing on them the Spirit of His new life.

St. Luke and St. John combine to give us a perfect, or almost perfect, knowledge of what took place in this first manifestation: for such the latter permits us to call it, all previous appearances having, as we have seen, been only precursors and heralds of this. It was the Lord's first "assembling together with His people"—to use the expression of Acts i. 3—and, it may be boldly said, the first congregation of the Christian Church met around His name on the Lord's day. This is no disparagement to the primacy of the Pentecostal assembly, when really the congregation of Christ's flesh, baptised into the name of the Holy Trinity, receiving the Apostles' doctrine, and in their fellowship breaking bread, first made the name Church a reality. It is no disparagement to that intermediate gathering on the mountain in Galilee, when our Lord announced His supremacy and expounded His final commission. But we are now beholding the company which has all the reality of the Christian Church impressed upon it at least in outline. It must always be remembered that in grace as in nature the principle of continuity holds. There are no sudden and violent leaps or breaks in the procedures of the Divine economy. The interval of fifty days was not a perfect blank; nor did the risen Lord wait until the day of Pentecost was full come. From the moment of His reassumption of His body, unviolated by death, throughout the great day of His resurrection, down to His "Peace be unto you!" this reunion with His flock was in His thoughts. It might seem indeed from two of the accounts that His anticipation was projected forward to the more general assembly on the mountain in Galilee. But the harmony of the accounts qualifies this. We learn from the other two reporters—indeed from three of them—that this nearer assembly was more immediately in His mind. And when the evening was come St. Luke and St. John unite—in this more than in any particular—to give us the full meaning of this first assembly.

It does not seem to be the will of the Spirit of inspiration that the harmonising of the narratives should be so far carried out as to construct a connected account interweaving every word of all the evangelists. The ligaments and junctures necessary for this are wanting. In the presence of the supreme event which they unite to record, the circumstantials of the details are not thought of. For instance, we are now utterly unable

to weave into a perfectly harmonious narrative the comings and goings of the women; though there are indications here and there that the several evangelists are perfectly aware of each other's accounts. But in the two narratives of the first assembly we have all the elements of a perfect harmony. St. Luke tells us that the Lord stood suddenly in the midst of the disciples while they were listening to the Emmaus brethren with wonder and incredulity. He gives us to understand that the Lord rebuked the reasonings of their hearts, which reasonings St. Mark sets down as no less than unbelief (ch. xvi. 12). In fact, they believed that they saw a spirit—the spirit of their Master without His body. That was the extent of their unbelief. Two of them were not included in the reproof: we must not press St. Luke's words too far. To Simon the Lord had appeared; and, although we know not what took place in that private interview, which perhaps sealed on Simon's heart the personal forgiveness which Peter received officially by the lake side afterwards, we may be sure that he did not think he saw a spirit. And John's faith has already been attested. But the Apostles as a company were incredulous. St. John's account tells us that the question "Why are ye troubled?" was preceded by the words, "Peace be unto you!" which were the effectual solace of their souls. But not as they were first spoken: as yet they were, like the gift of the Spirit, rather an earnest than the full reality. After He had shown them "His hands and His feet," "His hands and His side," and had eaten in their presence, then comes in St. John's second "Peace be unto you!" with its full strength and confirmation, bearing away every lingering vestige of their doubt.

At this point St. John leaves his companion, and introduces what is to him the main significance of the first meeting. His second "Peace be unto you!" looks forward to the gift of the Spirit and the great commission. The first looked backward to the fears and reasonings and doubts which it stilled; and that was enforced by the exhibition of the sacred tokens—which, we repeat, were precious memorials to Himself as well as evidence to His doubting disciples—and by the eating before them. The second is strictly linked with the symbolical breathing of His new life. The sacred signs on His body, and the partaking of food, had reference to His human nature restored in its verity: the actual body a second time "prepared for Him" after it had served its holy purpose of a redeeming sacrifice. The breathing upon them, and

its accompanying peace, had reference to His new estate of exaltation, in which the Divinity is the supreme element in His incarnate Person, and the bestowment of which on His people is through the Holy Ghost. Here comes in all the meaning of St. Paul's "life-giving Spirit," as that signifies not the Holy Ghost through whom it is conveyed but the Person Himself of the "Lord from heaven." It is hard for us to distinguish between the Holy Spirit as the Divine agent in imparting the Divine-human life of the risen Son of God; but it is necessary to do so. He breathed on His disciples His own new and perfected life; but He said "Receive ye the Holy Ghost." He gave Himself; they received the Holy Ghost: the distinction and the unity of these propositions is the perplexity of the reason of the "natural man:" it is the glory of "him that is spiritual," and "discriminateth all things." But this is not all. St. John adds that the Lord re-uttered the words He had spoken before "while He was yet with them," concerning their mission from Himself in the likeness of His own commission, and their full authority in His name and by His Spirit to bind and to loose on earth what He binds and looses in heaven.

But here the pertinacious spirit of the critical, which is here the "natural," man revolts, and asks why St. Luke omits what is the very essence of the whole event. The question, which has much keenness in its edge at this point, is one that places its note of united interrogation and exclamation at almost every point of the history of the fifty days, or rather of the forty before the ascension. In fact, a careful study of the entire literature of the attacks on the Resurrection will show that it resolved itself mainly, if not entirely, into the question why the four evangelists say what they say, omitting what they omit: the why, however, being silently or loudly changed into the affirmation that every omission is argument of untruthfulness or ignorance. As to the ignorance, it might be said that it is barely possible that some of the recorders were unacquainted with some of the incidents of the great day: they "knew the power of His resurrection" without, it may be, knowing the exact truth of the several processions to the open sepulchre. But if we remember how surely engraven on the heart of the Christian company the events of such a time must have been, we shall be very slow to believe that anything that took place that morning failed to transpire. But as to the untruthfulness, the answer must be more positive. Indeed it is this

which is chiefly harped upon. Not one unbelieving critic can be found who does not echo the cry that whatever Luke did not record he did not know, that Matthew describes the ascension as taking place immediately after the resurrection, that John knows nothing of the ascension itself, and in short that anything omitted by any reporter must be struck out of the category of fact. The work on "Supernatural Religion" is almost forgotten; but it lies before us, and in fact is a valuable assistance to us at every point. There we find it taken for granted as a necessary postulate needing no proof: a postulate the application of which would reduce the history of the forty days to what might be called, speaking of any other subject, a most amusing scantiness, if indeed any narrative were left at all.

The plain answer to this kind of comment is that, professing to be exceedingly critical, it is utterly without judgment. It forgets the first canon of criticism in the estimate of such independent and yet convergent accounts as these, that the design of each reporter be discovered, and that his record be measured by that. Afterwards, when each has been shown to be consistent with himself, it will be important to collate the whole, and see if their agreement is generally capable of sufficient vindication.

Now, in the case of St. John's narrative, there is abundant evidence of his having most carefully arranged the materials that remained for him over and above the reports of the three Synoptists. He had his own purpose; and that was to form such a bridge as none of the other evangelists has constructed between the Resurrection and the Pentecost: in other words, to show how the Lord who had taken His farewell, is to reappear through the Spirit. Hence his single chapter—omitting now the postscript—is composed of a succession of variations on one theme: the relation between the Lord absent in the body and present in the Spirit. A special design may be traced in each of the evangelists. For instance, St. Matthew's leading idea is to show that the risen Jesus was Christ the Lord; the Ruler in the new theocracy; and his eye is fixed on the mountain in Galilee, to which the Lord Himself looked forward before His departure, which He remembered on the morning of His resurrection, and which He kept before His disciples' minds throughout the interval. The superscription of this evangelical narrative would be: "That it might be fulfilled which was written in the Prophet Zechariah." And St. Luke writes as the predestined con-

tinuator of the history of Christ, his Gospel being an introduction to the Acts; and, thus viewed, the double account of the Ascension—one looking back on the life that had been spent out, and the other looking forward to the "life indissoluble, the endless life"—receives a most satisfactory illustration. The same might be said of each reporter, if we knew all his secret mind and purpose: this, however, we know not, for of all men that ever wrote history these were the least anxious, in their sacred impersonality, to betray their motives and aims. But this leads to a higher consideration. There was One superintending them Whose agents and ministers they were; Who brought all things to their remembrance, and suggested to them designs and aims—as witnesses of Jesus according to the scriptural word, as artists in human language—of which they would otherwise have been utterly incapable. The Holy Spirit is the historian of the Forty Days; and to those who remember this there is no portion of the Gospels, or indeed of the entire New Testament, that is to say of the whole Scripture, which is more pleasant to the eye, more refreshing to the taste, or more meet to make one wise. The readers who are here reading the words which the Holy Ghost teacheth feel as the Emmaus intercepted travellers felt: their hearts burn within them. They burn with devotion to the risen Lord; and they also are apt to burn—and they are forgiven for it—with resentment and holy indignation at the abject trifling which is shown in much critical treatment of these holy narratives. And, it may be added, they sorrow also to find so many devout expositors easily yielding in the spirit of compromise, and saying in words which are familiar enough: "It is impossible to harmonise these accounts; but the great central fact is all the more glorious and immovable."

We shall not be misunderstood in saying that on St. John's account rests mainly the burden of the responsibility. He is the last of the recorders, and, so to speak, the final and authoritative human keeper of the evangelical tradition. He cannot be supposed to have written his narrative without a perfect knowledge of what had been written before. Into the evidence of this we have no vocation to enter now. Our business is to accept his narrative as giving the apostolic rule for the interpretation of the accounts. He shows plainly enough that he is selecting out of the rich, the boundless repertory of his own memory, a few things which shall illustrate his one purpose: to exhibit the link between the

Resurrection and the Pentecost as the transition from Christ known after the flesh to Christ known after the Spirit. Hence he draws Mary Magdalene from the group of the women, and makes her tell her tale of what passed in her case. We see in the other evangelists that there was something very significant and peculiar in her relation to the risen Lord. Her name is always first: for which there was no obvious reason whatever, apart from the deep interest the secret of which St. John discovers to us. St. Mark, who at this point is a compendiator, notes expressly that she was the first who saw the Lord. But St. John reveals the secret that is scarcely hidden in the others. The immemorial "Touch me not" gives us its meaning so clearly that all the artifices of pious expositors have failed to obscure it: a meaning so clear as to warrant our affirming that the instinctive interpretation in the hearts of any average congregation of devout hearers of the narrative is the correct one. "'Touch Me' as the others have done, for the assurance of your faith; but 'cling not to Me,' as thou art doing, for I am not yet ascended. The true union and mystical fellowship, the heavenly touch, is yet to you and to all in the future."

There is another manifestation of the infidel spirit which is rebuked by these accounts; and that is the irreverent criticism of the relation of our Lord's body to space. This is, according to what has just been said, St. John's question especially. But he passes it over, as all the evangelists do, without the slightest comment. It is poor satire to say that they are "half enthusiasts and half deceivers, who delight in the marvellous; and, having once started on the way of invention, stop at nothing." They write as men to whom the mystery of the two natures united in one person is perfectly familiar, and who do not think it necessary ever and anon to remind their readers that they are narrating the acts of one who is God as well as man. The many discussions to which this has given rise, especially among the Lutherans in its bearings on their peculiar dogma of the Ubiquity, are as mournful within the Church as the sneers of the infidels outside. It is far better, far more in harmony with the bold faith that accepts the incarnation, to receive the facts without any explanation. Were St. John at the bar of modern criticism his answer would most certainly contain no subtle theory of the qualities of an ethereal body, or of the process of glorification during which the Lord might assimilate food, and glorify it as He received it. He would bid us remember

that "the Word became flesh," and that it suffices to believe that the manner of His communication with the world around through the medium of His risen body is as utterly beyond our comprehension as His incarnation itself is. The history of the resurrection-interval, however, only continues the lesson which all the Gospels teach before the cross. From the beginning to the end there is not a single word inserted to parry, or obviate, or diminish surprise at the tremendous paradoxes of Divine and human action in the same sentence. It is the great silent presupposition that One Being is both God and man, and that we have nothing to do with the laws which regulate His assumption of one or the other character. Our exposition should reverently abstain, like the Apostles, who durst not ask Him about the mysteries that occupied them, "knowing that it was the Lord." St. John, however, says all when He says that the Lord breathed His Spirit on His disciples.

The words to Mary Magdalene were the immediate precursor of the breathing of the Spirit on the Apostles who received her message. There has been much controversy as to the meaning of the Lord's symbolical act and its relation to a supposed impartation of the Holy Spirit, of which it was the sign. Three methods of explaining it are familiar to readers of the commentaries. There is one which boldly makes it an anticipation of the Pentecost; in fact, St. John's version of that day, which to him had by no means the significance it had in some other traditions, had culminated in the wonders of the second chapter of the Acts. Another regards it as a mere sign, for the present altogether meaningless, but containing the promise of what the Pentecost would more fully explain: that is to say, as a prophecy simple. If these two were the only alternative, we should of course adopt the latter part of it. But there is a third course: the remarkable sign was a seal as well as sign, and gave to the Apostles, as the representatives of the Church, a specific new gift, which could not have been given before the resurrection, in virtue of which they became sharers of the new life of the Redeemer, and capable of continuing His work in the world. But this gift was itself to be more fully explained, confirmed, and, in St. Paul's language, "stirred up" on the day of Pentecost, and therefore this third interpretation really unites the two others.

When it is said that the gift was bestowed on the Apostles "as the representatives of the Church," a difference must be

noted which is of some importance. Though the Apostles were certainly, during the Lord's earlier and later presence, the representatives of the whole discipleship in a sense that no other body of men could be, in a sense in which they could have no successors, we must be on our guard against assigning them more than their due. If we examine carefully the text and context in which their singular prerogatives are referred to, we find that their representative character is bound up very closely with the congregation itself. They are never depositaries of the Holy Spirit apart from the Church. Whatever may be said of the "binding and loosing," the 'breathing on them" of this passage must be regarded as the first great symbolical assurance to the whole body of Christ that His resurrection life was the common property. Here we must fortify ourselves by an excellent note from the volume mentioned at the head of our paper.

"Not only did the risen Lord thus send His disciples on their mission to the world, He gave them also the preparation which should enable them to fulfil their trust. The literal and correct rendering of the original Greek is not 'Receive the Holy Spirit,' but 'Receive Holy Spirit;' the difference being, as was pointed out in chap. vii. 39, that by the latter expression we are to understand not the personal Holy Ghost, but His power or influence over the hearts of men. It was in the power of Holy Spirit that Jesus had entered upon His own ministry (Luke iv. 1, where the same expression is used as here); with the like preparation shall His Church enter upon the work to which she is called. The gift now bestowed is, therefore, simply symbolical but real: at that moment the Spirit was given. All this is in perfect harmony with words of chapter vii. 39, because at this moment the glorification of Jesus has begun (see note on verse 17). The gift, too, was imparted not to Apostles only, but to all the disciples present; it is a gift not for the ministry alone, but for the whole Church of Christ. If so, the interesting question immediately arises, What is the relation of the gift spoken of here to that bestowed at Pentecost? The answer would seem to be that here the gift relates to the inner life of the disciples, there to the more outward equipment for their work; here to the enlightenment and quickening of their own souls, there to preparation for producing an effect on others. Perhaps we may seek an illustration (to be applied, as always, with reserve) from the life of the Saviour Himself. As His public ministry began when the Holy Spirit descended on Him at His baptism, so did His Apostles receive their full commission and power on the day of Pentecost. But as before His baptism the Holy Spirit had rested on Him con-

tinually, so now, before Pentecost, the same holy influence is bestowed on His disciples, preparing them for the day of final consecration to their work. It has, indeed, often been maintained that we have before us a promise and not a present gift. But such cannot be the meaning of the language which is here used. Even were it granted that the word 'receive' might be understood as an assurance of a future gift, the action which accompanies the word must imply much more than this. 'He breathed on them:' this surely was the outward symbol of an actual impartation—of His *breathing into* them (see Gen. ii. 7, where the same word is used) the power and influence of which He spoke. And yet it is true that this gift was both present (actual) and also future (a promise). As present, it brought with it the quickening of spiritual life; as future, it included in itself all that Pentecost gave. The former thought is important in relation to the development of the disciples: the latter in its connection with verse 23, and especially in its presentation of the Redeemer as Himself the Giver of the Holy Spirit (chapter xvi. 26)."

It is not for us curiously to inquire what are the stages and degrees of the life that Jesus, the Prince of Life, gives; nor what was the stage which is marked here by the "quickening of spiritual life." Before this we may reverently suppose that the Life was in their midst, and moving upon and around them by preliminary influences; but that now in a sense never experienced before He became an internal principle, though not yet fully "revealed in them." But we have to do now with the universality of this gift; and what confirms to us the substantial truth of this exposition, is the close connection of the "Peace" with the gift of the Holy Spirit. Both are the heritage of the whole company of believers, and from that moment the entire company were possessors of a life they had not before, the strength and determination and issues of which the day of Pentecost only developed and matured. But we cannot help feeling that the Apostles as such had a special heritage both in the Spirit and in the solemn commission which accompanied the bestowment of His influence. The words of the commission we shall presently call on the same careful and exact expositors to explain: with this proviso, that a certain special and unshared prerogative of the Apostles must be inserted in their exposition. If we go back to their investiture when the Redeemer for the first time spoke of His "Church," and linked it expressly with His "Kingdom" (Matt. xvi.) St. Peter is certainly prominent; and the history of the Acts interprets his pre-

eminence in both admitting and excluding from the Kingdom of Grace. When they are mentioned a second time in Matt. xviii., where again the Church and the Kingdom are united, it is equally plain that the prerogatives are lodged in the whole company of believers. But justice is done to the truth only by combining these; and in the passage we now consider the combination seems perfect. In the first the apostle Peter is the representative of the apostolic body; in the second the Church seems to be alone as the depositary; here they are blended, and in the midst of the Church the ambassadors of Christ are sent with credentials such as no others received. They held keys which they never transmitted, but they certainly used them themselves; and their authority, reduced and explained as we shall now see in the following note, gives the name to the pastoral authority of the Christian Church.

"We regard two points as established from what has been already said. 1. The words of this verse are not addressed to Apostles alone. 2. Though conjoined with a present impartation of the Holy Spirit, they belong really to the days when the disciples shall have fully entered on their work as representatives of their Lord and His witnesses in the world. This verse and the last stand in the closest possible connection: only when the Holy Spirit has been received can such a commission as this be executed. Without unduly entering on controverted ground, let us seek to collect the meaning which the words (which we have thought it desirable to render with unusual closeness) must necessarily bear. It is clear that *two* remissions of sin are spoken of,—two which agree in one. Where Christ's servants 'have remitted the sins of any' these sins 'have been remitted unto them,—remitted absolutely, *i.e.*, remitted by God, for 'who can forgive sins but God only?' (Mark ii. 7). But as we know that the Divine forgiveness is suspended on certain conditions, —penitence and faith,—it follows that the remission granted by Christ's disciples must (since it agrees with the Divine remission) be suspended on the same conditions. Either, therefore, the disciples must possess unfailing insight into man's heart (such as in certain cases was granted to an Apostle, see Acts v. 3), or the remission which they proclaim must be *conditionally* proclaimed. No one can maintain the former alternative. It follows, then, that what our Lord here commits to His disciples, to His Church, is the right authoritatively to declare, in His name, that there is forgiveness for man's sin and on what conditions the sin will be forgiven. Nor does there seem to be ground for thinking that we have here a special application by

one individual, whether minister or not, to another of the remission (or retention) of sin spoken of. The use of 'any' in the plural number appears to be inconsistent with such a view. It is not a direct address by one person to another that is thought of,—'I declare that *thy* sins are thus authoritatively remitted or retained.' It is a proclamation from one collective body to another,—from the Church to the world. The mission of the Church is to announce to the world her own existence in her Lord, as a company of forgiven men, and to invite the world to join her. Let the world comply with the invitation, it shall enjoy forgiveness in the company of the forgiven: let it refuse the invitation, it can only have its sins retained in the company of those who have been 'judged already' (compare chapter iii. 18). Here, as in all else, the Church only *witnesses* to what her Lord *does*. But as it is by her *life*, even more than by *words*, that she witnesses, so it is by accepting or rejecting her life that her witness is accepted or rejected; and thus it is that by communion with her the blessing is enjoyed, that by separation from her it is forfeited. It ought particularly to be noticed that of the two remissions or retentions of sins spoken of in the words before us, the Divine act, although the last to be mentioned, is the first in thought,—'*have been* remitted,' '*have been* retained.'"

During these supernumerary days of the Son of Man the things which Jesus began to do and teach were still going on. Although a great change had taken place in the manner of His communications and in His works we perceive that there is one chain which links the present with the past: that their Master is still giving His disciples words which are to be brought to their remembrance by the Spirit. He still speaks of the things which pertain to His kingdom; and we may assume that the veiled instruction, the teaching by germinal hints and symbols to be afterwards explained, continues precisely the same as before. The promise of the new Guide was in abeyance until the set time was fully come; and until that time the Lord prolongs the days of His own ministry. We cannot measure the abundance of that ministry. The records of the evangelists are very limited. Each seems to have his particular design, and to select from the materials accessible to him what suited his own purpose; while all seem to be conscious that the great day of spiritual revelation is at hand and that their task is ended with the resurrection. We have only a few fragments of the post-resurrection instructions of our Lord. And it is impossible to read these narratives of the Interval without feeling—it is

matter of feeling rather than proof—that very many communications of great importance were made to the Apostles which reappear after Pentecost without any indication of their origin. "The things concerning His kingdom" have a wide significance: they may reasonably be thought to include much which was afterwards suggested by the Holy Ghost as reminiscences and expositions of what the Saviour had spoken during these days: this period falling under the general rule, "He shall bring all things to remembrance whatsoever I have spoken to you." It is hard to doubt that the evangelical narratives of the Lord's life before His death and resurrection owe much to the Saviour's disclosures of what none but Himself could have known. He had said, "Ye cannot bear them now;" and of some of the things which they could not yet bear—that is, which were not appropriate for His lips to utter or their ears to hear at that time of their absorbed concentration on one subject—the time had come after the resurrection. He who looks narrowly into the Gospels will find that there are secrets in the Lord's history from the beginning which none but Himself could have revealed: the forty days in the wilderness at the beginning and the private interviews with His judges at the end are instances. It is forced upon us also to suppose that the relation of the sacraments to His kingdom, the methods by which His kingdom was to be spread, the place which the New-Testament Scriptures were to occupy, and the general constitution of His Church, were subjects more or less dwelt upon in these supernumerary days of His ministry. Comparing "the things concerning His kingdom" with the scanty narratives of the Four, which all seem to hurry towards the Ascension and Pentecost, we cannot think that what we actually read satisfies this large expression. The Holy Spirit, the Interpreter to the Apostles of the full meaning of all the Lord's institutions, from time to time incorporated them all. It may here be asked: How does this refer to St. Paul? With this question we have not now to do. But it may be observed that he himself most explicitly answers it. To him "born out of due time" into the apostolic company, the Saviour spoke directly by His Spirit; though we observe even in his case that there were commandments and sayings of Jesus lying before him as giving to the other Apostles which as theirs was brought to his remembrance also. Did the Lord give any hint

after His resurrection of the coming of this future Apostle, who should in some respects surpass them all?

Thomas was not present when this first manifestation took place. He did not hear the "peace;" he did not behold the hands and the side, which the risen Lord had shown to the disciples for their consolation and for His own joy; he did not hear the reproof which the rest had heard; and the wonderful events of the long first day of the Lord had been only reported to him, though doubtless reported to him with every detail affectionately remembered and dilated on. Why he was not present we are left to surmise. It is plain enough why we are told that he was not present; the great lesson of the next Lord's day explains that; and explaining the reason of the record explains the reason of his absence too. He was not with the disciples, because he was overcome by his despondency, and had no heart for the fellowship of his brethren. It was not that his faith was less than theirs; they all alike failed to perceive that their Master must rise from the dead. To the whole company as such—with all possible reserve in regard to one of them—the words of reproof were applicable which others "slow of heart" as to the resurrection had formerly heard: "Ye do err not knowing the Scriptures nor the power of God." What the Sadducees had received as their reproof these other doubters of another type of unbelief had received also. They were all in the same category of slow-heartedness; and as they fled from the darkness of the cross, so they also fled from the coming light of the resurrection. Thomas, however, led the way in both these processes of unbelief. All being doubters, his doubt was more demonstrative; hence "was he not rightly called Didymus, the man of divided thought?" But his absence from the company is not commented on by the evangelist; the simple fact is stated, not so much to mark his state of mind before as to show how it came to pass that he could utter the words which are reported of him, and remain in such a state of mind during the following week. Had he been where he should have been on the first Lord's day, the history of the second Lord's day would never have been written. But then St. John, in his profoundly significant way, does note that his absence was that of "one of the Twelve;" a perfectly needless note, save as indicating that he had forfeited for a season an apostolical blessing and a prerogative. The breathing

of the Spirit did not quicken his morbid and half-dead spirit. He saw not the sacred tokens which it was the privilege of every living disciple sooner or later to see. He received not the commission in person which nevertheless belonged to him as much as to the others; and into the full possession of which he as it were naturally entered when his unbelief passed away. Hence he went to his rest on the evening of the first day in a very different state of mind from that of his comforted brethren. Hence he awoke to the first Christian week in a very different tone from theirs; and, as we may suppose, spent such a week of distraction and sorrow as was at once the penalty of his absence and the gentle discipline of his loving Lord. Here, however, the evangelist encourages no speculation as to the psychological problem of Thomas's state of mind. But neither does he discourage it. And we can hardly understand what follows without some endeavour to realise to ourselves the precise nature of the unbelief of which he was in danger.

"Of which he was in danger:" when our Lord afterwards spoke to him He said, "Become not faithless, but believing;" St. Thomas was never, nor was ever likely to be, an absolute unbeliever in Jesus. Had he been such, he would have followed the Emmaus disciples, and gone further than they. Nor would he have been found on the second Lord's day with his brethren. He was incredulous as to the Lord's resurrection from the dead; but that did not necessarily carry with it unbelief as to His Messiahship. We must remember that what the Lord rebuked in the Apostles' hearts was their reasoning doubts; not their unbelief simply, not their doubts simply, but these as suggesting to them all manner of speculations as to what the return of their Master without His body might mean. They supposed they saw a spirit; not any spirit, or a spiritual appearance generally, but the spirit of Jesus, which however could not be Jesus Himself. It is not difficult, though to us it is superfluous, to inquire what speculations might be engendered in the minds of men who believed that Jesus had in some sense returned, but not in the verity of "the same Jesus." Suffice that to our Lord Himself any doubt about His actual return in the whole verity of human nature was unbelief to be convicted, reproved, and convinced away by every "infallible proof." To Him, and to us who know His doctrine as these same

men have taught it to us, there is no Christ Who does not occupy the very body which bore our sins to the Tree.

St. John's is sometimes called the spiritual Gospel. It certainly is the Holy Spirit's instrument for the perfect glorification of the Lord in the abundant demonstration of His absolute Divinity, and in the perfect revelation of the spirituality of His indwelling by the Holy Ghost. Yet it is peculiarly this Gospel which records the special interview of the risen Lord with Thomas, in the midst of the disciples, when He gave him or offered him the evidence that his unbelief had demanded. Into the details of this scene it is not within our scope to enter. Nor to dwell on the effect upon the incredulous disciple which the Lord's proof both of His Divinity and of His humanity produced. It was a double proof. He felt that the Lord was the searcher of his heart—as Nathanael felt at the beginning and as Peter felt at the close of this Gospel—and that He had not only heard the words of his impatient despondency but had also penetrated to the secret of his character as disposed to unbelief. He saw the proof of His actual humanity, and the tokens that He had died on the cross. And he passed from the furthest borderland of unbelief which any Apostle had reached to the highest confession that any of them had ever uttered: "My Lord and my God." Thus the Conqueror finally won one of His noblest captives; and gives everlasting encouragement to those who sincerely doubt but come within the reach of evidence. We quote our two expositors once more:

> "One other remark may be made. Those who study the structure of the Fourth Gospel will hardly fail to trace in the incident thus placed at the close of its narrative the tendency of the Evangelist to return upon his own early steps. He had begun with 'the Word' who 'was God;' he closes with that highest truth accepted and ratified by those to whom the revelation was given. The last witness borne by one of them in the body of the Gospel narrative is, 'My Lord and my God.'"

Another illustration of this "returning upon his own early steps" we may find in the fact that the sublime benediction pronounced by our Lord on those who believe without seeing goes back to lessons taught in the beginning of this Gospel. When the Saviour accepted the faith which Nathanael showed, He in effect pronounced it blessed because it rested on his perception of the Divine in his

new Master; and the benediction took the form of a promise that "he should see greater things than these," which was enlarged into a promise that the disciples, trusting in Him because of what they saw with their fleshly eyes, should see "heaven opened on the Son of man," that is, should have higher attestations than their physical eyes should ever behold. So here the Lord silently pronounces Thomas and his companions blessed for believing when they saw; but at the same time He lifts up His eyes to embrace all the future and pronounces them blessed too, if not yet more blessed, whose faith should spring from the manifestations of the Divine in Him through the Holy Ghost. The glorification of the risen Lord through the Comforter is as much here meant as if the Lord had so spoken. The hour was coming, and now began to be, when all who believe in Jesus must believe in Him as One unseen. It might almost seem as if the Saviour did not expect that the mere faith in the records of what others had seen and handled would be sufficient to bear the stress of His infinite claims. "No man can say Jesus is Lord, but by the Holy Ghost." "Except ye see signs and wonders ye will not believe!" our Lord had once said in this same Gospel: and the echo of that word penetrates to our present one. Again, St. John—returning on his steps again afterwards in his epistle—closes the New-Testament teaching on evidence by assigning it almost entirely to the Holy Ghost. "It is the Spirit that beareth witness," and "He that believeth on the Son of God hath the Witness in himself." The blessing pronounced on all future believers can only be thus understood. The state of heart which responds to the appeal of the Spirit of Christ in His Word, and in His Church, and in His ordinances is the blessed state; and this our Lord would impress for ever. Those who labour hard to charm away their unbelief by laborious studies of the so-called external evidences, and after all these pains discover how far they are from a perfect joy, are the best illustrations of His meaning. Not indeed the best: they are the best illustrations, who, while with honest minds they strive to place themselves in the company of the first recorders, and give due credit to their testimonies, seek the direct illumination of the Spirit, and rest not until He seals the truth on their hearts. They receive the fulfilment of this last of all the benedictions; for their sake and for their encouragement

the Lord uttered it. What else this lesson teaches is well expressed by Dr. Bruce, a new edition of whose vigorous and acute volume on "The Training of the Twelve" is just put into our hands:

"As little does He mean to say that all the felicity falls to the lot of those who have never, like Thomas, doubted. The fact is not so. Those who believe with facility do certainly enjoy a blessedness all their own. They escape the torment of uncertainty, and the current of their spiritual life flows on very smoothly. But the men who have doubted, and now at length believe, have also their peculiar joys, with which no stranger can intermeddle. Theirs is the joy experienced when that which was dead is alive again, and that which was lost is found. Theirs is the rapture of Thomas when he exclaimed, with reference to a Saviour thought to be gone for ever, 'My Lord and my God.' Theirs is the bliss of the man who, having dived into a deep sea, brings up a pearl of very great price. Theirs is the comfort of having their very bygone doubts made available for the furtherance of their faith, every doubt becoming a stone in the hidden foundation on which the superstructure of their creed is built, the perturbations of faith being converted into confirmations, just as the perturbations in the planetary motions, at first supposed to throw doubt on Newton's theory of gravitation, were converted by more searching inquiry into the strongest proof of its truth.

"What, then, does the Lord Jesus mean by these words? Simply this: He would have those who must believe without seeing, understand that they have no cause to envy those who had an opportunity of seeing, and who believed only after they saw. We who live so far from the events, are very apt to imagine that we are placed at a great disadvantage as compared with the disciples of Jesus. So in some respects we are, and especially in this, that faith is more difficult for us than for them. But then we must not forget that, in proportion as faith is difficult, it is meritorious, and precious to the heart. It is a higher attainment to be able to believe without seeing, than to believe because we have seen; and if it cost an effort, the trial of faith but enhances its value. We must remember, further, that we never reach the full blessedness of faith till what we believe shines in the light of its own self-evidence. Think you the disciples were happy men because they had seen their risen Lord and believed? They were far happier when they had attained to such clear insight into the whole mystery of redemption, that proof of this or that particular fact or doctrine was felt to be quite unnecessary.

"To that felicity Jesus wished His doubting disciple to aspire; and by contrasting his case with that of those who believe without seeing, He gives us to know that it is attainable for us also. We,

too, may attain the blessedness of a faith raised above all doubt by its own clear insight into divine truth. If we are faithful, we may rise to this from very humble things. We may begin in our weakness, with being Thomases, clinging eagerly to every spar of external evidence to save ourselves from drowning, and end with a faith amounting almost to sight, rejoicing in Jesus as the Lord our God, with a joy unspeakable and full of glory."

Had Thomas been in the midst of the company on whom the Lord breathed the Spirit he would have had that evidence which renders sight needless. But when the week revolved he was there, and received his portion of the sealing Spirit. He did behold and see: the evidence he asked for he had; and it is a perfectly superfluous question to ask whether or not he touched. But even while he was beholding the tokens of the veritable manhood of his Lord, the Spirit sealed upon his heart the evidence of the Lord's Divinity, and he had such an experience as he never had before. He does not cry, "Rabboni!" "My Master!" but "My Lord and my God!" The perfect faith in Jesus brings Him before the soul and into the soul as God: that is, impresses His Spirit, His Divine nature, on the soul through the Holy Ghost. And such faith our Lord blessed by sublime anticipation to the end of time.

It is not wandering from our immediate subject to pause here and consider the relation of the Holy Ghost to the interval of eight days which the Lord allowed to elapse before His appearance. It is our evangelist, to John himself, who has for ever linked the two together: "I was in the Spirit on the Lord's day," and no one can challenge our right to interpret the link as we venture now to do. The Spirit being breathed on the apostolic company—still being until Pentecost the representatives of the whole community—was the director of every thought and movement. The Lord was absent; but it ought not to be said that both the Lord and His agent the Holy Ghost were absent. An absolute interregnum, as we have seen, there could not be. The Comforter had so far begun His administration as to direct the plans and operations of the apostolic company. And there needs no express assurance that it was He who brought together the Ten on the first weekly return of the great day. Is it too much to say that the first secret influence of the Spirit which had been breathed on the Apostles prompted them to assemble together in the name and around the name of Jesus

precisely on the hebdomadal return of the day of resurrection? This is not indeed said; but the whole history is one of endless suggestion; and to us at least it is an irresistible inference from St. John's marked reference to the interval. The disciples were within—though the word "assembled" is not here, and indeed must be given up in the preceding narrative—and not "for fear of the Jews." They were separated from the world in a gathering of special solemnity; concerning which it is quite lawful to say that it was the first intentional and deliberate consecration of the day on the part of the Church. And the day was crowned by the bestowment of the gift of the Spirit. Here St. John's Gospel really ends; and the next Christian Sabbath may be proved by computation to have been the Day of Pentecost, when the invisible Lord again and still more effectually breathed the Spirit on His people.

The period of Nine Days which now follows may be regarded as the eve of the Pentecost and a period of solemn preparation for it. At the same time it must be remembered that the very preparation itself is conducted under the special influence of the Holy Spirit already given in some measure.

It is a strong temptation to the dramatic expositor of the history of Christ to regard this interval as strictly an interregnum, during which the Lord is absent and His representative has not yet come. This would invest the period with a character of surpassing interest. In fact, there would be nothing like it in the history of revelation: the dispensation of the Second Person asserted, and the Church thrown back again on the Jehovah of the Old Testament. And there is much in the history that might encourage such a notion: for instance, the Old-Testament lot is cast for the election of a successor to Judas; there is no mention of any appearance of Jesus in the midst as of old; and certainly there is no such joy in the Holy Ghost as was afterwards the most obvious characteristic of the Christian assembly. Jesus has undoubtedly taken His long farewell as a visible Presence; and in this respect we feel as we go up to the chamber over the gate that there is a pathetic tone of desolation in the narrative. Perhaps we carry the thought which we find there; but certain it is that the doors are still "shut for fear of the Jews," and that there is no longer any lingering vestige of

hope that the well-known voice will again speak the "Peace be unto you!" or that they will ever again see the wounds in the hands. Whether it is merely our own feeling or not, the hundred and twenty seem a mourning assembly, comforting each other after the Great Bereavement, with Mary the chief mourner in the midst. On the other hand, the Other Comforter is most certainly not yet come. The contrast between these intermediate assemblies and the morning and evening of Pentecost is so marked as to be observable at once. They do not praise the wonderful works of God; they go in and out no more than is absolutely necessary; though Jerusalem is waiting for the message, there is no "sound" going forth to summon its crowds; there is no preaching, nor are there any miracles; and it does seem as if the work of the Gospel is abruptly and entirely suspended. Thus there seems to be some measure of truth in the supposition that this period is a time of transition, on a smaller scale, like the interval between the Old Testament and the New; and to study it under this aspect suggests much profitable meditation.

That the heavens have received the Lord is clear enough; and so it is that the Holy Spirit has not altogether taken His place. But yet it is not to be doubted that the breathing on the first congregation on the first Christian Sabbath has not been in vain. Every movement of the little company proved that the Holy Spirit was as much with them as if the day of Pentecost was already fully come. But He was not with them in His power. Among the last words the Lord ever spoke upon earth were a promise of more abundant spiritual influence to rest upon them after a certain time. Or to be more explicit: the Spirit was already given, but not given in His power, not in what is here called His baptism. It was, however the influence of the Spirit on the apostolic company that prompted them to gather the little company together in the upper room. There Simon Peter gives the first evidence of the fulfilment of the Saviour's declaration to him concerning "the keys of the kingdom of heaven." He never used them more effectually than during the interval. We see that he is the master of the assembly. He "binds" by decreeing that the Scripture must needs have been fulfilled, and does not so much advise the Church as direct it in the matter of the lot. Nor should we go far astray if we

regarded him as "retaining" the sin of Judas in his words. Passing from that, however, we may say that under the influence of the Spirit the law is given for the quotation of Old-Testament prophecy. There is one allusion to the Holy Spirit in connection with this history which must not be passed over too rapidly. The address of St. Peter to the Christian assembly quotes the Old Testament in a very remarkable way: in a manner for which nothing in the Gospels has quite prepared us, but which gives the law for subsequent quotation. As the expositors of the Acts in this volume aptly say, "Guided by the Holy Spirit St. Peter finds in these words of the two Psalms this especially sad episode in the history of Christ plainly foreshadowed, and discovers in them an injunction to proceed to the election of another to make up the number of the Twelve."

This quiet little note means a great deal. The action of St. Peter during this interval was a very important one: it was either according to the will of the Head of the Church or it was an impatient and premature invasion of the prerogative of the post-pentecostal Church. Many eminent expositors have advocated the view that the choice of Matthias was a mistake, and that St. Paul was the rightful successor of the traitor. In that case the Interval must be regarded as quite without the Holy Ghost, and indeed a blank. But then St. Peter's appeal to His word in the psalm—thus placing the whole matter as it were under the special patronage of the Spirit—forbids such a supposition. No transaction in the New Testament is more authoritative than the filling up of the apostolic company. It was not expedient that at the coming of the Holy Spirit on the day of Pentecost He should find the witnesses of the Christ in a broken member. But at this point we must take up Dr. Bruce once more, and lighten our pages by his vivid descriptions:

"Besides praying, the waiting disciples doubtless spent part of their time in reading the Scriptures. This is not stated; but it may be assumed as a matter of course, and it may also be inferred from the manner in which Peter handled Old-Testament texts in his address to the people on the day of Pentecost. That pentecostal sermon bears marks of previous preparation. It was in one sense an extempore effusion, under the inspiriation of the Holy Ghost, but in another it was the fruit of careful study. Peter and his brethren had, without doubt, reperused all those

passages which Jesus had expounded on the evening of the day on which He rose from the dead, and among them that psalm of David, whose words the Apostle quoted in his first Gospel sermon, in support of the doctrine of Christ's resurrection. We may find evidence of the minute, careful attention bestowed on that and other Messianic portions of Scripture in the exactness with which the quotation is given. The four verses of the psalm stand word for word in Peter's discourse as they do in the original text—a fact all the more remarkable that New-Testament speakers and writers do not, as a rule, slavishly adhere to the *ipsissima verba* in their Old-Testament citations, but quote texts somewhat freely.

"The spiritual exercise of those ten days would be further diversified by religious conversation. The reading of Scripture would naturally give rise to comments and queries. The brethren who had been privileged to hear Jesus expound the things which were written in the law and in the prophets and in the psalms concerning Himself on the night of His resurrection day, would not fail to give their fellow believers the benefit of instructions through which their own understandings had been opened. Peter, who was so prompt to propose the election of a new witness to the resurrection of Jesus, would be not less prompt to tell the company in the upper room what the risen Jesus had said about these Old-Testament texts. He would freely speak to *them* of the meaning Jesus taught him to find in the sixteenth Psalm, just as he took the liberty of doing afterwards in addressing the multitude in the streets of Jerusalem. When that psalm had been read, he would say: 'Men and brethren, thus and thus did the Lord Jesus interpret these words;' just as, when the 109th Psalm had been read, he stood up and said: 'Men and brethren, this Scripture must needs have been fulfilled, which the Holy Ghost by the mouth of David spake before concerning Judas: for it is written, Let his habitation be desolate, and let no man dwell therein; and his bishopric let another take. Wherefore let us choose another to fill his place.'"

But there is no allusion here to that remarkable intimation which St. Luke gives us in the record of this history: that Jesus "gave command to His Apostles by the Holy Ghost." Much has been written about the meaning of these words; but much might have been spared had it been borne in mind that the new dispensation had already as it were begun. It is true that Jesus spoke Himself to them about the things of His kingdom; but it is also true that the Interpreting Spirit was already more than a mere promise, and that He was in fact beginning to reveal inwardly the Saviour's meaning. From the moment when He breathed on them the Holy Ghost, a change passed

over the manner of His communications. He gave commandment "by the Holy Ghost" to His Apostles, even when He was speaking to them in the old familiar tones. The reception and understanding of His words were under new conditions. And it is this which explains the peculiarity of the expression. It had never been said that the Lord was Himself in the Spirit as a teacher. He was not the subject of inspiration Himself; nor were His words the result of any influence of the Spirit upon Him. Now, after the resurrection, the subordinate relation of the Third Person is made emphatic. The Lord by His agency communicated much instruction to His Apostles; and began already to train their minds to the new method of receiving His words.

It was "by the Holy Ghost" that the Lord corrected His disciples' imperfect conceptions concerning His kingdom. Into this subject we cannot now enter; but may say generally that there is no evidence of any such extremely carnal notions in the Apostles' minds as is generally attributed to them. Dr. Bruce goes further than the text warrants when he says that "In this brief question three gross misconceptions are contained. It is assumed that Christ was to reign personally on the earth, a great king, like David. The disciples had no idea whatever of an ascension into heaven. Then the kingdom they expect is merely a national Jewish one. 'Dost Thou,' they ask, 'restore the kingdom *to Israel?*' Finally, the kingdom looked for by them is political, not spiritual: it is not a new creation, but a kingdom of earth *restored* from a present prostrate condition to former power and splendour." We cannot think that the Apostles were in anything like the state of immaturity which this indicates. Their question, studied under a microscope, discloses nothing more than uncertainty as to the time of the great manifestation which they had been taught to expect. Indeed, that was the only subject which the Lord had left indistinct, concerning which therefore they were likely to ask any question. His long dissertation on the Old-Testament prophecies—which had not been confined to the Emmaus brethren—and the instruction given in connection with the breathing of the Spirit and the commission of the Eleven must have removed every vestige of uncertainty as to the spiritual character of the new kingdom and its extension beyond Israel to the ends of the earth. Moreover, the

question to which we refer, was put by these Apostles after the scene on the mountain in Galilee, when the Lord had assumed His high authority in heaven and earth and sent His Apostles forth to the ends of the world, and given His promise to be present with His servants to the end of the ages. In the light of this truth, how does this interpretation of the Apostles' question appear?

With regard, however, to this and many other topics arising here, the general principle may be laid down that under the guidance and operation of the Holy Ghost already imparted to them, the disciples of Jesus waited for that fuller outpouring in comparison of which all former illapses were what the breathing is to the mighty rushing wind. It was the "spirit of grace and supplication" that sent them to the upper room, and united them in one common feeling of penitent, self-renouncing expectation. Day after day, they meditated upon the past, and refreshed each other's thankful memories. Day after day they mused over the strange and wonderful experience of their own weakness in the presence of their high duties and obligations. They were to be "witnesses of Him;" and yet hardly dared to look out upon the city where their witness was first to be heard. But the days of preparation were brought by the Spirit Himself to their issue: and He was given to the souls whom He had taught to expect Him.

LITERARY NOTICES.

I. THEOLOGICAL.

A Religious Encyclopædia.

A Religious Encyclopædia: or Dictionary of Biblical, Historical, Doctrinal, and Practical Theology. Based on the Real Encyclopædia of Herzog, Plitt and Hanck. Edited by Philip Schaff, D.D., LL.D. Vol. I. T. and T. Clark. 1883.

Dr. Schaff is very bold in undertaking this publication; and, were the work in the hands of any other editor, we should have little confidence as to its success. In his hands, however, we feel sure that it will prosper. As an editor he has every advantage. He was himself one of the contributors to the great Herzog, of which this is a free abridgment; and he is a master of the whole range, or a large part of the whole range, of subjects that belong to an encyclopædia of theology. He has also before his eyes a former failure in a similar enterprise—with which, however, he had nothing to do—and will know what to avoid. And, finally, Dr. Schaff has no experience in failure. He has conducted many great literary schemes, and they are all, generally speaking, acceptable to the public. But our chief reason for auguring well of this publication is that the fund of theology from which this is drawn is a most precious one: no more valuable body of theological knowledge is extant, and two-thirds of what we have here is a faithful reproduction of its treasure. Of course, the reproduction is not a robbery; as the editors of Herzog have been honourably made confederates in this issue. A glance at the list of contributors—drawn from all the Protestant schools and colleges of Europe and America—will satisfy any one that he will have in these volumes a valuable addition to his theological library. A young student cannot set out with better companions than good books of reference. We would advise him to get this as it gradually comes out. With the next volume we hope to be able to speak about it more at length: this little, however, is not said without careful consideration of many of the leading articles.

Commentaries on the Revised New Testament.

A Commentary on the Revised Version of the New Testament By W. G. Humphry, B.D. Cassell, Petter, Galpin and Co. 1882.

The Revised Version of the New Testament: A Critical Commentary, with Notes upon the Text. By the Rev. W. A. Osborne, Rector of Donington. Kegan Paul, Trench and Co. 1882.

The literature of the "Revision," which threatens to form a voluminous library in itself, bears witness to the deep interest, both popular and scholarly, with which this confessedly great work is regarded. If there were no other fruit of the anxious and protracted labours of the Jerusalem Chamber, the Revisers might almost be satisfied with the universal attention which their work has excited, and with the devotion to the time-honoured Version [which it proposes to supplement, or even to supersede] which it has evoked. The tenacity with which all classes cling to the very words of the Book which they have been wont to reverence is not in itself an unhealthy symptom; for, if we mistake not, the opposition which the Revised Version has stirred up does not arise out of prejudice against revision, as such; it springs rather from a profound love of the Old Version which cannot brook any divergence from it which is not inexorably necessary.

The vigorous attacks which have been made upon the work of the Revisers,—some of them undoubtedly transgressing the limits of fair and generous criticism,—must not be allowed to discount the value of their labours as a whole. The charge of an undue bias in favour of certain manuscripts, even if it could be sustained, would relate to but a limited number of passages. The Revisers themselves would probably be the first to admit that not a few of their renderings are inferior in rhythm to those which they displace, and that in some instances they have not been strictly faithful to the canons which they themselves laid down at the outset of their work. But if all the objections of even the most hostile criticism were admitted, the Revised Version would furnish an overwhelming balance of invaluable contributions towards a faithful and well-nigh infallible translation of the Sacred Text.

The volume prepared by Mr. Humphry, a distinguished member of the Revision Committee, is a very admirable complement to the Committee's work. In his Preface he modestly proposes "to provide a companion for the English reader who studies the *Revised Version of the New Testament*, with a view to his edifica-

tion and instruction." Such a reader, as Mr. Humphry assumes, "will sometimes fail to discover the reason or the significance of the change that has been made in the Version." The object, therefore, of this work is to supply the reader's lack of critical insight, and to show him that the changes made are demanded by fidelity to the original text, and are not the outcome either of pedantry, or of a mere desire for change. We venture to think that Mr. Humphry has not appraised his labours at their true value. He has laid even scholarly readers under great obligations, not only by calling attention to the more conspicuous changes which have been made in the Version, but by the sound critical information which he has furnished. The worth of the volume is considerably enhanced by a commentary on the more difficult passages. Many of Mr. Humphry's expositions and illustrations are remarkably terse and felicitous.

Our readers cannot do better than read this book for themselves. It will shed much light, not only on the work of the Revisers, but on obscure passages of the Sacred Word. It will introduce them to many of the quaint readings of the earlier English versions, and show "the changes which have taken place in our language during the long period over which they extend." And it will strengthen the conviction that no change, either in the Greek Text or the English Version, which can be defended on critical grounds can impair in any degree a single article of the faith. "The doctrine" says Mr. Humphry, "is all the stronger, all the more impregnable, because the confident statements of assailants have been refuted, and the misgivings of half-hearted believers, so far as they were countenanced by discrepancies in the MSS., and imperfections in the Version, have now, we may hope, been for ever set at rest."

A few illustrations, selected at a venture from the four Gospels, will serve as specimens of Mr. Humphry's style. "Matt. v. 21. *It was said to them of old time.* Auth., *by them,* following Beza, *dictum est a veteribus.* All previous versions, following Vulg., with Chrysostom, &c., *to them.* The Greek is in itself ambiguous: but the meaning is decided by the consideration that the Commandments which follow were given, not by sundry lawgivers or teachers, but by one, by Moses to the Israelites: and the antithesis may be thus expanded: 'This was said by Moses to them of old time: but I say unto you.' Both the pronouns (especially 'I') are here emphatic in the Greek. Moreover, the Greek ἐρρέθη in the New Testament and in the LXX. is not followed by a noun describing the speaker, but by one which (as here) denotes the persons addressed (comp. Rom. ix. 12, 26). Thus at the very outset of His ministry our Lord assumes Divine authority, not speaking in the manner of the Scribes, the servile expounders of Rabbinical tradition, but taking upon Himself to

enlarge and spiritualise the law given by Moses under inspiration from God."

"Matt. vi. 10. *As in heaven, so on earth.* Auth., *in earth, as it is in heaven.* The Greek order is followed. There is much diversity in the earlier versions. Vulg., *sicut in cœlo, et in terra,* according to the Greek order, is followed by Rhem. only. The inverted order is that of Wycliffe and Tyndal. The Greek order emphasises the last words, *so on earth:* the Auth. throws the stress on *as it is in heaven,* and suggests, as the meaning of the petition, 'May Thy will be done on earth as perfectly as it is done in heaven;' whereas the true meaning according to the Greek is, 'May Thy will which is done in heaven be done on earth also,' no comparison being implied as to the manner in which it is done: the connecting particles being *as* (ὡς, not καθώς) in heaven, *also* (καί, not οὕτως) on earth. It is worthy of notice that *heaven* appears in the Greek as a plural at the beginning of the prayer, and here in the singular."

Not a little light is shed by Mr. Humphry's note on the very difficult and, indeed, unintelligible passage as given in the Authorised Version of Matt. xv. 5. "This verse has been relieved of the obscurity in which it is involved by the rendering and interpretation of the Authorised:—(1) By a different arrangement of the first part of the sentence; (2) By the insertion in italics of the words *to God,* 'is given *to God,*' these words being supplied from the parallel passage of St. Mark vii. 11, 12, where the word is not, as here, the Greek δῶρον, 'a gift,' but the Hebrew *Korban,* meaning that which is dedicated to God's service; (3) By a change in the Greek text of verse 6, giving this as the meaning, 'he shall not honour his father,' instead of 'and honour not his father and his mother; *he shall be free.*' The pretence of the son is that what he might have given for the benefit of his parents he has already dedicated to God's service; and the Pharisees said, anyone alleging such a prior dedication should be excused from the observance of the fifth commandment—he should *not* honour his father. Thus for the sake of their tradition they allowed the law of God to be set aside."

After citing the overwhelming critical authority for the revised text and rendering of Luke ii. 14, *and on earth peace among men in whom He is well pleased,* Mr. Humphry adds, "The change of the text, slight as it is, involves a great change of rendering and interpretation, and throws some obscurity on one of the most joyous passages in the Bible. Yet even the loss of a familiar rhythm and a delightful assurance may be more than compensated by the belief that we know better than we did what was the real utterance of the heavenly host, and the exact meaning of the joyful tidings which they proclaimed. And we may remember that by accepting it we are only adopting the form which has

always been current in the version and liturgy of the Western Church." In the same spirit is Mr. Humphry's criticism on the passage, John xvii. 2, *That whatsoever Thou hast given Him, to them,* &c. "'Whatsoever' (Greek πᾶν ὃ) is said of the whole body of the believers, "to them," i.e., the individuals of whom the body consists. So Rhem., following Vulg., *ut omne quod dedisti ei, det eis vitam æternam.* Auth., with Tyndale, 'that he should give eternal life to as many as Thou hast given him,' a paraphrase which does indeed avoid the rugged phrase of the original, while it seems at first sight to convey the full meaning of it; but even the rugged phrase is dear to one who thinks by whom and on what occasion it was used; and it becomes still more precious when he perceives what the full meaning really is, the Father has 'given,' has made over to the Son, the whole body of believers, and to each of them, one by one, the Son gives eternal life."

The above specimens will furnish but an imperfect idea of a book which we have studied with much pleasure, and which we can confidently commend. We have only to suggest that in future editions there should be more careful editorial revision; and as the work has been prepared mainly for English readers, it would be well to extend the very brief paragraph which is allotted to the Greek MSS. of the New Testament.

Mr. Osborne's *Commentary* on the Revised Version is constructed on totally different lines. It is professedly critical, and is intended rather for scholars than for the general reader. It seems that the author, a former Head Master of Rossall School, began some forty years ago "to collect materials for a revised translation of the New Testament." His work was nearly completed when he heard, in Germany, of the forthcoming publication of the Committee of Revisers. Though naturally disappointed by the necessity of sacrificing the labour of years, he was so delighted with the work of the Revisers, which he regarded as "so precious an aid to the study of the Holy Scriptures," that his disappointment was scarcely regretted. He was struck "with the greater accuracy of the text and the wonderful fidelity of many of the renderings;" he "felt proud of the triumph of English scholarship" as displayed "by felicitous alterations in full accordance with the best authorities," and, as attack after attack was made upon the Revisers, he had no difficulty in ascribing all hostile criticism either to "gross exaggeration, or a curious ignorance of the idioms of the Greek and Hebrew languages." But this exultation was only short-lived. A closer study of the Revised Version discovered serious shortcomings. "Every perusal brought to light inaccuracies or inconsistencies," betraying "the absence of the one master mind, which should have moulded discordant counsels into an harmonious whole;" grave faults were revealed in the shape of a too implicit dependence on the Sinaitic and Vatican Codices, the intrusion of

spurious marginal readings, needless transpositions, "inconsistencies as to tenses, articles, prepositions," and the lack of "the glorious cadences" which distinguished the genius of Tyndale. Yet even these he would have been content to condone as "but trivial blemishes," if the Committee had been satisfied to regard its work as simply a contribution towards an Authorised Version of the future. But he cannot forgive the claim which he assumes that the Committee has put forth, that of superseding "our incomparable version," and he avows his conviction that not until "the Avatar of some divine like Tyndale," some one individual in whom may be found "the triple character of poet, prophet, and divine," can any revision be realised which shall be worthy to take the place of the venerable version which our fathers produced.

In the meanwhile he puts forth this volume as a contribution, "not to the superstructure, but the foundation only of some future edifice." Not a few of his suggestions are scholarly and valuable; and if his book had been published ten years earlier, it might have been of service. His renderings are in the main exact and literal; and this, perhaps, is their fault; for a literal rendering of the Greek text must necessarily be fatal to any version. But there are many terms and phrases in Mr. Osborne's book which will never commend themselves to English readers. Such, for instance, are "the anxiety of the age," for "the care of this world," "a wine-drinker" for "a wine-bibber," "deniers" for "pence," "dumfounded" for "speechless," "the cross-roads of the highways" for "highways," "birthpangs" for "travail," "the whole cohort" for "the whole band," "but he, showing umbrage" for "and he was sad," "a more excessive condemnation" for "greater damnation," "breathed His last" for "gave up the ghost," "spawn" for "generation," "be contented with your billets" instead of "your wages," "senseless one" for "thou fool," "enjoying himself gloriously" for "faring sumptuously," "ten minæ" for "ten talents," "grammar" for "letters," "sacristan" for "temple-keeper" (A. V. "worshipper"), "refitted our equipment" for "took up our carriages" (or baggage), "so I box" for "so fight I," "incongruously yoked" for "unequally yoked," "towards his bed-rod" for "upon the top of his staff," "parallax of revolution" for "shadow of turning." It will be long, too, before well-known texts will give way to such renderings as "with much of my capital I acquired this citizenship," or "Jesus I recognise and Paul I know," or "but a greater than these two is the love," or "already tempted in all respects in a similitude." But apart from these blemishes Mr. Osborne's volume is worthy of careful study. Its spirit throughout is devout and reverent and modest, and all will join in his desire that "every humble effort to restore the pure Word of God, or make its meaning plainer" may be "received without abuse or acrimony," seeing that all,

whether scholars or divines, "are labouring to build only on the same foundation—gold, silver, costly stones, perhaps worse, hay and stubble."

Gesta Christi.

Gesta Christi: or, A History of Humane Progress under Christianity. By C. Loring Brace. London: Hodder and Stoughton.

This is in every way a good book—subject, treatment, style, matter, aim are alike excellent. The author's aim is to illustrate the beneficent action of Christianity in the various spheres of human life. For this purpose he divides the whole period since the Christian era into three periods—the Roman, mediæval, and modern—and exhibits the influence of Christianity on the various branches of morality and classes of society. He is well versed in the literature of the subject; the questions requiring legal knowledge are treated with special intelligence; the style is quiet and scholarly. The fact that the author "has been engaged for some thirty years in a practical application of the principles of Christianity, with the view of curing certain great social evils in the city of New York," brings him into thorough sympathy with his theme. At the same time he is on his guard against exaggeration, which is the special peril of sympathy. In seeking "to show what Christianity has done for the world," he does not forget that "many influences, material, moral, and intellectual, have combined to effect the advance of the race in morality and humanity." A precise estimate of what is due to these several factors is impossible, but it is needless. After every deduction has been made, the argument for the Divine power inherent in Christianity is overwhelming. The present work is indirectly a most powerful apology of a practical kind, based not on argument, but on indisputable facts. The author's aim is only apologetic in the second place. His primary interest is in the subject itself. Any inference in the direction of Christian apology is left to the reader. Let us add that the work is a finished work. There is no trace of haste or crudeness. The studies and working experience of many years are embodied in it. We should find it difficult to speak too highly of the work, or to commend it too strongly to all friends of Christianity and their kind.

The chief points dealt with in the Roman period are—Restraint of Excessive Parental Power, Position of Woman, Slavery, Exposure of Children, Distribution of Property: in the Middle Ages—Position of Woman, Feudal Wars, Ordeals and Duels, Torture, Rights of Strangers, Piracy, Education, Serfdom and Slavery, Chivalry: in Modern Days—Position of Woman, Divorce, Inter-

national Law, Slavery, Duelling, Prison Reform, Co-operation and Pauperism, Free Trade, Intemperance, Persecution. It will be seen that several important subjects recur in the several periods. The influence of Christianity on the position and character of woman may be regarded as the chief topic of the book. Slavery also is treated with great fulness. The chapters dealing with these topics are full of information brought together from sources not readily accessible to ordinary readers; but the field they open is so wide that we must pass them by.

The point to which we would draw attention, and which is amply illustrated in the present volume, is the wisdom shown by the Christian Church in its conflict with the reigning evils of different periods. It never went in for extreme measures of reform by outward means. It preferred restraint to prohibition, and trusted rather to gradual improvement than to violent remedies. The wisdom shown by the early Church in dealing with slavery has often been imitated since in other matters. The Apostles and their successors did not openly denounce the system. The times were not ripe for this. The condemnation was much more implied than expressed; but, at the same time, truths were sedulously taught and convictions created which insured the fall of the system in the end. The same policy has been pursued with equal success on other questions. There was no more prominent feature of mediæval life than its violence. Private wars, duels, blood feuds, private revenge were universal and apparently inveterate. Europe was one unbroken scene of strife and outrage. The way in which Christianity sought to temper and check the evil was by getting fines substituted for blows, by forbidding strife at certain periods and in certain places, and by encouraging arbitration. Some of the regulations in force may seem strange to us; but it was no little triumph to secure even a temporary or local truce in a state of universal war. Undoubtedly the chief power in the final suppression of private feuds and wars was the erection of strong governments able to control the turbulence of chiefs and nobles who had hitherto figured as independent princes. Hence arose the highly centralised governments which were universal in Europe down to very recent days. In condemning the tyranny into which they degenerated we ought not to forget the services which they rendered in their earlier days. But our present point is, that before these governments had acquired power and were able to enforce the supremacy of law, Christianity was the sole restraint on the passions of barbarous peoples. Modern philanthropists would do well to study the moderation of the past, and to temper the ardour of zeal with the patience of faith. We are convinced that this is the right way to deal with the evil of war. In a very interesting chapter our author measures the ground that has been gained in this respect. The difference

between ancient and modern wars on the score of humanity is immense. William Rufus cut off the hands and feet of his Welsh prisoners; the Emperor Barbarossa had his prisoners shot from military engines. Poisoned weapons were used down to the fifteenth century. It is needless to point out in detail what progress has been made with respect to the treatment of the wounded and of private persons and property. It is singular that America has hitherto refused to sanction the abolition of privateering, although she was ready enough to enforce excessive damages against Great Britain for the outrages of the *Alabama*. The inviolability of private property at sea during war has not yet been agreed to. No doubt it would seem a strange contradiction for a nation to be at war in one respect and at peace in another. But war itself is an anachronism and a dishonour to Christian nations. Our chief hope at present is in the extension of the principle of arbitration. Although inapplicable in extreme cases, it is perfectly practicable in the majority of cases which hitherto have been settled by the sword. Our author states the standing armies of Europe cost £600,000,000 a year; and this enormous loss is the least evil of the present state of things.

We again commend the present work to our readers, remarking that the story of progress achieved in the past is full of encouragement to all who are labouring in the cause of humanity, peace, temperance, and purity.

Jubilee Lectures.

Jubilee Lectures: A Historical Series delivered on the Occasion of the Congregational Union of England and Wales. With an Introductory Chapter. Two Vols. London: Hodder and Stoughton.

Besides their immediate purpose as a memorial, these volumes will long serve as a statement of Congregational principles and an epitome of Congregational history. Like the recent St. Giles's lectures on the history of the Scotch Church, they give ordinary readers as much information respecting the aims and history of Congregationalism as they have time or occasion for. The English work is much more complete and polemical than its Scotch companion. The latter is exclusively historical, whereas the *Jubilee Lectures*, although styled a "Historical Series," are just as strongly marked by the apologetic or even aggressive element. The "introductory chapter" by Dr. Fairbairn is a professed vindication of the Independent idea of the Church. The pugnacious tone, using the word in no offensive sense, present in so many of the lectures, is very characteristic and interesting. The

reader is thankful when he is not the mark of such blows dealt by such strong, skilful hands. Let us say once for all that the conspicuous and uniform ability of the volume is worthy alike of the writers, the theme, and the occasion. We may perhaps be forgiven for remarking that the only topic absent from the volume is the "Union," of which the volume is a jubilee memorial.

It is not a little significant that Independents, like modern Episcopalians and Presbyterians, abandon the argument from the authority of the New Testament. In former days it was otherwise. Each of the three types of church polity pleaded *jus divinum* for itself. Now these systems are justified on grounds of reason and expediency. The argument of Bishop Lightfoot in his notable essay is very different from the arguments of his predecessors. The same change of ground is clearly apparent on the Independent side. Dr. Dale says, "Most modern Congregationalists would decline to rest the argument for Congregationalism on precedents recorded in the Acts of the Apostles or on texts quoted from the Epistles. We prefer to find the laws of ecclesiastical polity in the laws of spiritual life, in the objects for which Christian churches exist, in the central principles of the teaching of Christ." Dr. Fairbairn in the "introductory chapter" takes precisely the same line. This change of front is matter of rejoicing. In principle the advocates of the three systems occupy similar ground, and so far come nearer each other. The result must be a lessening of bitterness and growth of charity impossible before. Dr. Fairbairn's argument for Independency is drawn solely from its supposed conformity to the genius of Christianity, and its necessity in order to the realisation of the highest forms of Christian life. These are very intelligible and noble arguments. Far be it from us to characterise them as vague. Still it is evident that their cogency is largely subjective, and depends on the right apprehension of the truths and facts entering into the question. Dr. Fairbairn maintains the necessity of Congregational association, or at least of association, in order to the formation of the highest type of Christian life. He rejects the notion of individualism, which some might think the logical outcome of Independency. But why fix the limits of association at the congregation? Surely it is but a narrow type of character that is exhibited on such an area. Does civil organisation stop at the municipal community? Is it not precisely the more complex problems which emerge in the larger organisation that call forth the highest powers of human nature, powers that find no scope on the smaller field? We are surprised to find such a broad statement as the following: "Ecclesiastical polities that build congregations into a corporate system, into a uniform and centralised body-politic, must be intolerant." Why should this be more true of "ecclesiastical" than of civil polities? It may be true of "ecclesiastical polities" that

claim divine, infallible authority; but the intolerance then is the result of the special claim, which is no part of the polity. Intolerance is no more a necessary consequence of a "corporate system" based on reason and convenience, than of a congregational system based on reason and convenience. The essay dwells much on the analogy between Independency and the political life of the ancient Greek cities. The type of character fostered by those little independent republics of old is extolled as the highest conceivable. We should certainly join issue with the writer on that point. We conceive that the English citizen and statesman stand on a far higher plane than the Athenian citizen and statesman. A mind dealing with such limited interests necessarily contracts narrowness and hardness; and these are patent defects, as it seems to us, in the old Greek life. If association on the large scale cramps development, why not on the small scale? If association on the small scale is essential to development of character, and so is a good, must it not be a greater good on the large scale? Why glorify individualism up to a certain point, and then suddenly drop it? Dr. Dale says in his lecture, "The possible is hardly worth living for. It is the ideal that kindles enthusiasm and gives inspiration and vigour to all human effort." What is the ideal? The perfection of the individual. Very good. What then is the use of the congregational fellowship? It is a means towards the perfecting of the individual. Very good. Then must not the larger fellowship be a still more effective means to this end, or at all events develop a higher ideal of perfection? Ought the Christian Church to provide means for satisfying the desire for fellowship in its highest forms, or satisfy this desire up to a certain point, and then leave its members to seek wider and nobler forms of fellowship outside itself? Really, Dr. Fairbairn's argument would make the very simple, undeveloped society of the early Church the law for all time—that is, perpetuate the tribal or village governments of the earliest ages. He argues strongly that the episcopal system was an aberration *in toto* from the first, an aberration resulting in part from Jewish and in part from Gentile tendencies. Its abuses and excesses were aberrations, but we see no reason to affirm this of the institution itself. We cannot affirm that episcopacy *per se* is incompatible with the spirit of the Christian religion. We have no doubt that an Episcopalian Fairbairn or Allon or Dale on like abstract grounds could show good reasons to the contrary. But we gladly bring criticism to an end. Dr. Fairbairn's argument against the Episcopacy of the sacerdotal school is very powerful and conclusive. Recognising in Congregationalism a system at deadly feud with Sacerdotalism, we desire with all our hearts to see it strong and vigorous.

Our remarks have borne principally on the "introductory

chapter." The pictures of the several historical periods are drawn by experienced hands. Dealing with such familiar subjects, Drs. Dale, Allon, Stoughton, Kennedy, and their fellow-workers could not be other than successful. Dr. Allon is very severe on Laud, but we are inclined to think that he does well to be angry. His lecture may prove an antidote to Mozley's essay. The lectures do not always confine themselves as strictly to the period marked out by their subject as desirable. Each one seems ready, even anxious, to tell the whole story from the beginning. Browne and Barrow, Burroughs's *Irenicum*, and Edwards's *Gangraena* frequently reappear on the stage. Mr. Baldwin Brown in his vigorous and eloquent lecture on "The Struggle for Civil Liberty in the Georgian Era" strives hard to throw off the fetters imposed by his subject. Beginning with "our German forefathers" he traces the stream of liberty down its whole course, treating of the Georgian Era in the later pages. The subject of Mr. Mackennal's lecture, "The Evangelical Revival in the Georgian Era, and its Effect on the Development of the Free Church Principle," is very tempting to us. We will content ourselves with saying that the lecture is full of knowledge and generous appreciation.

Bowne's Metaphysics.

Metaphysics. A Study in First Principles. By Borden P. Bowne, Professor of Philosophy in Boston University. Sampson Low. 1882.

The name of Professor Bowne will probably be new to many of our readers, and to some the title of this book will sound anything but attractive. Notwithstanding, we can assure all who are interested in theology, and do not shrink from a little patient thought, that they will find in these pages what will amply repay their most careful perusal. As we know, "no problem emerges in theology which has not first emerged in philosophy," and in the treatment of those important topics which lie on the borderland of philosophy and theology, few more suggestive books than the present have, in our judgment, appeared for some time. At least, this is true for English readers, inasmuch as a large part of the subject matter here presented cannot be new to readers of German philosophy. But Professor Bowne has so handled his material as to make it in the fullest sense his own, and he presents it in a form free from the laboured German phraseology and style which so often repels English students. Of his speculations we are told, "Leibnitz furnishes the starting point, Herbart supplies the method, and the conclusions reached are essentially those of Lotze. I have reached them, for the most part, by strictly inde-

pendent reflection; but, so far as their character is concerned, there would be no great misrepresentation in calling them Lotzian." It is an advantage which many will appreciate to have presented to them in an interesting but at the same time carefully reasoned and thoroughly scientific form the results reached by such a thinker as Lotze. No more able philosophical advocate of Theism in this generation is known to us, while his conclusions are those of one eminent for his attainments in physical, chiefly physiological, science.

And there can be little doubt that the lack of a sound metaphysical system lies at the bottom, not only of crude popular errors, but of the graver errors of so-called "scientists" who decry metaphysics. "The pretended repudiation of metaphysics always has the practical result of assuming without criticism a very definite system of metaphysics—generally, a materialistic fatalism." And in vain does "common sense" endeavour to remedy the defect by falling back on an unreasoned and unreasonable system based on phenomena as perceived by the senses. "The senses have the same function in philosophy which they have in science, namely, to furnish the raw material for the mind's activity." And till that activity has been so exercised as to rationalise our sense-experiences, so as to express the true nature and relation of things, we cannot expect to be free on the one hand from popular theological crudities and confusions, and on the other from the unwarrantable assumptions of materialists and associational psychologists. We emphasise the theological bearings of this subject, because in our estimation the religious conflict of the day with agnostics of all kinds is to be fought out on the metaphysical battle-ground. And we are glad to commend as a companion, if not in quite all respects a guide, Professor Bowne as an English representative of Lotze. In our brief notice of his book, we shall attempt to give our readers some idea of his views of Being, drawn from the first Part, headed "Ontology;" and then further define his relation to other thinkers by quoting from a chapter towards the close of the third Part, which deals with Psychology. For the rest, and especially the writer's views of space and time, his refutation of the mechanical theory of life, which we find in the cosmology of the second Part, we must refer to the book itself.

Our aim is to understand reality. But this must be as it appears in thought; reality, as it does not appear in thought, is unknowable in the nature of the case. The only rational aim of the knowing mind must be to find not what the real is apart from thought, but the universal predicates of the real in thought. Hence, truth cannot be viewed as the correspondence of thought and thing, but as the universally valid in our thought of the thing. A knowledge of "things in themselves" can only mean a know-

ledge which shall be universally valid. The sceptic assumes that thought is second in knowledge, not first, and then being is allowed to challenge thought to know it. But in knowledge being appears as an hypothesis, posited by thought to explain our rational experience. But to posit something out of relation to intelligence gives us only a swelling sound, empty of the slightest substance. The subjectivity of thought then does not prevent it from comprehending being, because the latter must admit of rational determination, if it is to be affirmed at all.

Let us proceed then to "work-over our notion," as Herbart would say, of being, taking everything as it seems to be, and making only such changes as are necessary to bring our views into harmony with themselves. The confidence of reason in itself is a universal fact of mind, not to be groundlessly distrusted; the notions of common sense are to be modified only so far as reason itself may prescribe. This is just what physics does in its department, and if we have to depart somewhat widely from our provisional assumptions, we shall not be distinguishing between appearance and reality in any other way than does the Copernican theory of astronomy when it overthrows entirely popular views of the heavenly bodies, or the undulatory theory of light when it posits an invisible, imponderable ether. Our first concern must be to get rid of the phantom of "pure being," which arises from mistaking a logical concept for a real existence. Only the definite and specific can exist in reality. And if it could exist it would be useless, for the notion of being when found must contain the ground and explanation of all manifestation. Being as indefinite and undetermined contains no ground for the definite and determined manifestation. But clear as this may seem, this notion of pure, undetermined being has haunted philosophy from speculations of early Greek thinkers to the "substance" of Spinoza, and the phantom is not exorcised yet.

The next step is to show that being is *cause*, and the only mark of distinction between being and non-being is a *power of action* of some sort. Here the common-sense objection about passive being is met, and the latter shown to be a misleading abstraction from our physical experience. The above conclusion is in harmony with the most enlightened results of physical investigation, which show that "materiality is but the phenomenal product of a dynamism beneath it." And further, we have no right to separate between power and being, or to think of power as a something inherent in being. The reality is always an agent; "being and action are inseparable; to be is to act; the inactive is non-existent." While this view cannot be pictured, and will seem impossible to those who think only in sense-images, it must be thought, and reason shows "the inert core of rigid reality to be a useless and baseless fiction."

Another similar train of thought shows us that the nature of things is not explicable according to the common sense view of an enduring, changeless substance whose qualities are its changing states; a changeless substance affords no explanation of changing states. The thing changes constantly, and changes in its absolute totality. The only identity, therefore—such is what will appear to many the startling conclusion reached—to be found in impersonal things is the identity of law, and "*in personality or the self-conscious spirit we find the only union of change and permanence, or of identity and diversity.*" If by being we mean something which unites identity and diversity, we must say that the personal only is able to fill out the notion of a thing. Instead of interpreting personality from the side of ontology, we must interpret ontology from the side of personality. In our self-consciousness and memory we have the revelation and the proof of a continuity of being altogether different from the mere identity of law which is all that is discoverable in impersonal being. We pass of necessity over the arguments used to show that what may seem to us to be interaction between independent things is not really such, the independence being apparent, not real, and the plurality of things becomes reduced to a dependence upon one all-embracing being, which is the unity of the many. "An interacting many cannot coexist without a co-ordinating one"—the Infinite. The true nature of the Infinite is then proved in opposition to Spinoza, Hegel, and Spencer to be free, personal, and intelligent, in one of the most interesting chapters of the book.

Here we begin to obtain glimpses of daylight. The common-sense view has, by a chain of reasoning, of which very imperfect indication has been given here, passed from our grasp. Its elements have one after another dissolved and disappeared, and, instead of a rigid core of substance called matter, with its changing qualities, in unintelligible relation with another substance called spirit, we have the immanent action of one fundamental being, the Infinite, which does not exclude the coexistence of the finite, but is its self-sufficient source. If the world has vanished then under the action of this potent elenchus, do we vanish also? Is nothing but the Infinite real? Not so, answers our author, the infinite and the finite consciousness. But how do we arrive at these? Why do they not melt in the crucible along with the rest? My personal consciousness may suffice as testimony to the reality of my own existence, but why do I believe in the existence of others like myself? "The true reason can be found neither in psychology nor in metaphysics, but only in ethics. Our belief rests ultimately upon the conviction that it would be morally unbecoming on the part of God to subject us to any such measureless and systematic deceit. We conclude then (1) that the infinite is more certainly known than the objective finite; (2) perception is

essentially a revelation by the infinite to the finite; and (3) faith in the revelation must be based on an ethical faith in the revelator" (p. 458). This faith in the Revealer does not compel us to believe in the commonsense view of material substance with changing states, because that has been shown to contradict reason, and, indeed, to imply self-contradictions. But the result of our inquiry into the nature of being is to bring us face to face with this as the ultimate rational system or order of things. An Infinite, shown to be free, personal, intelligent, good; and finite consciousness, real agents, posited by the Infinite in creation. *Impersonal finite agents have vanished in the analysis.* "As impersonal, such an agent would have no subjective activity, and as dependent it has no objective activity; thus the notion vanishes into zero."

Our remarks have been mere hints as to what may be found in this book; neither the arguments on which these views are founded, nor the consequences implied in them, can be judged of from these few words. Professor Bowne, however, shows at some length in his third part how his "phenomenalism" differs from Berkeley and subjective idealism. He has not been endeavouring to show that the world is a gigantic fiction, but "a proper universal. It exists not in finite thought alone, but in the infinite thought and infinite volition. For us space is as real as the phenomena in it, and these in turn are as real as the space in which they appear. Both alike are subjective; but both alike are universal, in that they are phases of the thought-side of reality, and are valid for all intelligence from the particular standpoint" (p. 477, or again, p. 453).

"Three views are possible concerning the object in perception. We may regard it (1) as a thing in the common meaning of the term; (2) as a phenomenon of an objective fact of some kind; and (3) as only an effect in us." The first is common sense, proved self-contradictory; the third is subjective idealism; the second is the view of Professor Bowne, and the "objective fact of some kind" is the action of the infinite (spirit).

We can easily see the bearing of these speculations on modern theological discussions. As we are reminded in the preface, "Of late years the impression has widely prevailed that the belief in God and freedom exists only by sufferance, so that if logic were allowed to have its way, this belief would soon be beyond the reach of hope and mercy. Not sharing this conviction," Professor Bowne says, "Although it is said to have the fullest endorsement of the spirit of the times, I have rather sought to show that the truth of this belief is a matter of life and death to all philosophy and rational science." And, without committing ourselves to all the writer's arguments and conclusions, we thank him for an able work, and advise all thinkers and teachers who hold the belief in

God and freedom to be a "matter of life and death," for the spiritual welfare of the human race, to read what Dr. Bowne has to say about its philosophical and scientific basis.

Bovet's Egypt, Palestine, and Phœnicia.

Egypt, Palestine, and Phœnicia: A Visit to Sacred Lands. By Felix Bovet.

This book has been translated from the French by Canon Lyttleton in a time of illness. It is commended to English readers by a letter from Professor Godet, the popular commentator, who gives a brief account of the author's career as a student, writer, professor of French literature, and afterwards as a professor of Hebrew, also for forty years his own personal friend. The works of F. Bovet are not known in this country, though the volume before us has had a successful circulation for twenty-five years, having passed through eight French editions, and been translated into German, Swedish, Dutch, and Italian. A volume with such an introduction, author, and antecedents to some extent disarms criticism. We are prepossessed at once in its favour and anxious to know the secret of its success. The book is an account of a tour—or rather a pilgrimage—which commences at Marseilles and ends at Beyrout. Bovet is a worthy successor to the Frenchman of the fourth century who contributed the earliest piece of literature we possess of this class, and who is generally known as the Pilgrim of Bordeaux. He did not go out as a discoverer so much as a devotee. From his early years he had longed with an earnestness of desire, characteristic of faithful Jews, to see Jerusalem. Thus we have not the production of a phlegmatic philosopher, but of an enthusiastic pilgrim. His scholarship and devoutness make old things, which would be dry and dead in the pages of many, like Aaron's rod, green and living. It is the spirit of this writer which gives life to what is related, rather than startling experiences and hair-breadth escapes. Sometimes his religious sentiments make him pardonably sympathetic with superstitious customs and practices which are professedly expressions of devotion to sacred sites and events. He sees something to admire in the dance of the Egyptian dervishes (p. 57), and in the ceremony of the tapers lit by fire from heaven every Easter eve in the Holy Sepulchre at Jerusalem (p. 217). Bovet's reverence for the Holy City may be inferred from his own words. He says: "I know that I am coming near Jerusalem, and I am vexed to find myself unfit to feel the delight I have so often promised myself at that sight. All on a sudden, however, after passing over a little dip in the ground, I catch sight, at not more

than ten minutes' distance at most, of the embattled walls and cupolas of Jerusalem; my emotion conquers my fatigue. The impression made upon me surpasses all that I had imagined. My eyes fill with tears. My first feeling was a kind of softening of the heart, that indescribable mixture of admiration and of pathos, which is inspired by the sight of that which one loves. Here, then, lies before me that poor little town which has felt itself greater than all the greatest things of the earth, and has recognised itself as the principal city of the world! That city which was so much loved by David, which Jesus so much loved, and in which Jesus suffered for the sins of the whole world, and for my sins" (p. 113). This lofty spiritual tone pervades the book, and will give to religious readers inspirations rarely met with in books of travel. Even where we cannot agree with the author, we acknowledge a charming freshness and fragrance which led Godet to speak of this book as an unwithering flower which had been gathered in Palestine.

We regret that this work should have appeared so late as to be placed at a great disadvantage in the English market. M. F. Bovet does not tell us much of the manners and customs of the Maltese, Egyptians, Palestinians, and Phœnicians, which has not been well said many times by English and American authors, since his book first appeared. And it cannot be said that he adds to our knowledge of sacred topography and archæology. Moreover, it would be very misleading to suppose that the picture in this book is altogether one of the present; it is rather of twenty-five years ago. For instance, he speaks of Jerusalem having no suburbs (p. 144), but three years ago, when Sir Charles Wilson visited the city, he said that the suburbs had become almost as extensive as the city within the walls. The East, which continued as it was for 2,000 years is being quickly changed by European influence, and even Palestine, notoriously conservative, is feeling the power of Western civilisation in dress, manners, and architecture.

But if Bovet has nothing new to say upon one class of subjects, there is another, that of Biblical interpretation and illustration, to which he has made some valuable contributions. How instructive is the following account of carrying a key: "It is usual in the East to lean one's key on one's shoulder, as a sapper carries his axe. This custom, which I used to notice as I passed, became very interesting to me when, some time after, I read this prophecy of Isaiah, 'The key of the house of David will I lay on his shoulder; so that he shall open and none shall shut; and he shall shut and none shall open.'" This expression would be unintelligible without a knowledge of this custom which Bovet met with at Acre. We are also indebted to the author's Hebrew scholarship for new light shed upon some obscure passages of the Old

Testament. One instance has reference to the deliverance of the Galileans from the obscurity which characterises their history in the Old Testament, and from their religious disadvantages when compared with the people of Judæa. "Galilee was to have its turn; the last were to become first in the kingdom of God. The obscure shores of the lake of Gennesaret had been reserved in the counsels of Providence to become one day the native land of the Gospel. So that the prophecy fulfils itself. 'As the earlier ages left the land of Zebulun and the land of Naphtali without honour, so will the later cover with glory the way that goes from the sea to beyond Jordan, Galilee of the nations.'"

We cannot follow Bovet so readily when he discusses questions of sacred topography and archæology. The revelations of the pickaxe and shovel since he wrote have been so many and important, as we may see by opening Warren's *Underground Jerusalem*, or *The Temple and the Tomb*, that his presentation of the questions as to the walls of Jerusalem, the site of the Holy Sepulchre, and of Hezekiah's Pool, is necessarily very imperfect. Statements as to the position of Bethlehem are far from correct. He says (p. 271), "Bethlehem stands at a level three hundred feet higher than Jerusalem." But according to the recent survey of the locality it is forty-three feet lower than Jerusalem. It is also stated that Bethlehem is surrounded by hills lower than itself. But Râs-esh-Sherifeh, on the south-west, is more than seven hundred feet higher, and Beit Jala, immediately on the west, has an elevation higher by one hundred and forty feet. Our author also takes the well at the junction of the Kidron and Hinnom valleys, commonly called Bir Ayoub, for the En Rogel of the book of Joshua. But *Ain*—the bubbling spring—could never be correctly applied to a hole dug or bored in the earth, like that which is called the Well of Joab. It is true that *Ain* is ten times translated *well* in the Authorised Version, but incorrectly so. The only known *Ain* or spring near Jerusalem is that now called The Fountain of the Virgin, which supplies the Pool of Siloam, and if taken as the ancient En Rogel more reasonably meets all the requirements of Old Testament history.

There are also several historical events which seem to us seriously misplaced by Bovet. He says (p. 295) that there is no doubt that Ain Kârim was Elizabeth's principal home, and that John the Baptist was born there. But there is no reason to suppose that Ain Kârim was the site of a priestly city in which it is most likely Zacharias would reside. Either Jutta, or Hebron, between which the opinions of Biblical scholars are generally divided, has much stronger claims to be considered the birthplace of the Baptist.

The tradition that the fight of David with Goliath took place not far from Ain Kârim is accepted by Bovet. But tradition in

this must not be trusted, for it has also placed the fight in the valley of Jezreel, hence the name of the river which flows by Beisan, Nahr Jalud, *i.e.*, Goliath's River. The requirements of the history are much better met by placing the valley of Elah in the Wady-es-Sunt, thirteen miles west of Bethlehem, and the place of battle probably between the Arab villages of Shuweikeh and Zakariya, which may be taken to represent the ancient Shochoh and Azekah (1 Sam. xvii. 1). We will direct attention only to one other incorrect statement. The mountain of Samaria is said to be stronger than Jerusalem, "being surrounded by valleys on all sides. Samaria is an island, Jerusalem is only a peninsula" (p. 330). If Bovet had examined thoroughly he would have found that what the isthmus is which connects Jerusalem with the plateau on the north, such is the narrow saddle on the east of Samaria, and that the mountain is not completely isolated as he supposes.

Notwithstanding these mistakes, to which travellers making a hurried tour are very liable, we regard the book as one of the most readable that has appeared upon Sacred Lands. It is never dull; it is often enlivened by an amusing incident or conversation, while here and there a gentle pleasantry gives piquancy and flavour to what would otherwise, for lack of novelty, be rejected as tame and insipid.

Steel's Sermons.

Sermons Preached in the Chapel of Harrow School and Elsewhere. By the late Rev. T. H. Steel, M.A., formerly Fellow of Trinity College, Cambridge, sometime Vicar of St. Ippolyts and Great Wymondley, and late Assistant Master in Harrow School. With a Prefatory Memoir, by Henry Nettleship, M.A., Corpus Professor of Latin in the University of Oxford. London: Macmillan and Co. 1882.

The name of the preacher of these sermons will not be familiar to many. In disposition Mr. Steel was reserved and retiring, and his occupation, during the principal part of his career, was that of teaching, from which two causes it came to pass that he was little known outside a comparatively narrow circle. It was none the less a wise thing to print this volume of sermons. They consist, with two exceptions, of sermons preached in the chapel of Harrow School, and were found, after Mr. Steel's death, collected together among his manuscripts, with a dedication in his own handwriting; and they are marked by so many good qualities, being on the one hand fresh and earnest, and on the other bearing

constant evidence of the culture and wide scholarship of their author, that they fully deserve a place in that corner of the library where the masters of the pulpit are wont to cluster.

The life of Mr. Steel, like that of most schoolmasters, was quiet and uneventful. Born at Berwick-upon-Tweed in 1806, of a well-to-do burgher family, he was educated at St. Paul's School, and at Trinity College, Cambridge. His career at the University was honourable throughout. Then, as now, to be second in the first class of the classical tripos, and twentieth in the list of wranglers, was success to be envied. And his studies subsequently bore much the same ratio to one another. The best linguists of the day spoke of "the extraordinary depth and accuracy of his acquaintance with the classical languages," whilst to the end of his life he was always fairly abreast of the latest advances of mathematical and physical science. In sympathy with all studies, and a master of more than one, he belonged to a type of men—the representatives of which are gradually growing scarcer—intimately versed in the old learning and unacquainted with few branches of the new. In 1836, when the present Bishop of Lincoln was elected to the head-mastership of Harrow, Mr. Steel accompanied him as assistant. Seven years later he left Harrow for St. Ippolyts, in Hertfordshire, the vicarage of which he had accepted shortly before his removal from Cambridge. But in 1849 he was persuaded by Dr. Vaughan to return to Harrow, where he remained until within a few months of his death, which occurred on the 6th of December, 1881. The prefatory memoir by Professor Nettleship relates few incidents of general interest beyond the above, which constitute the outline of a career of singular tranquillity and of great religious attractiveness and beauty.

It is unfortunate that there exists so great unwillingness on the part of most scholars to print and publish the fruits of their scholarship. Either because they begrudge the time that would be thus consumed, or because they are unwilling to consent to even so partial a diversion from their favourite pursuits, they too often permit their knowledge to perish with them. Three small pamphlets, for instance, are, it appears, the sum of Mr. Steel's contributions to literature. It is true, indeed, that in his country parsonage he almost completed an edition of the *Œdipus Rex*, which his son-in-law, a classical scholar of no mean reputation, describes as executed with the greatest care and accuracy, and as embodying the results of the best Greek scholarship of the day. But in this state of near completion the manuscript was allowed to remain. Of the pamphlets, one is a discussion of "the best means of extending the utility of agricultural societies," in the form of a letter addressed to Lord Dacre, and a second is an urgent recommendation of the scheme, which Mr. Blackley has

more recently made familiar to the public under the name of *National Insurance.* The third pamphlet is a very able attempt to reform the method of teaching the classics that was at the time in vogue. The aim of such teaching, according to Mr. Steel, is to awaken the interest of the pupil, and call out his knowledge and faculty. To do that, the classical lesson should also be a lesson in English, and the differences in idioms and modes of expression should be worked out in detail; and consequently, in upper forms at least, the use of translations should be freely allowed, and the lesson should be made an exercise in expression as well as in grammar. Mr. Steel's views have not yet been generally adopted, but they have already won the support of many experienced teachers, and are gradually growing in favour. And whoever thoughtfully considers the reasoning of this little essay, which Professor Nettleship prints in full in the preface, will probably come to regard it as almost the most valuable thing in the volume.

In speaking of the quality of these sermons, it is necessary to remember the peculiar character of the audience before which all but two were preached. As sermons to youths and young men, whose education is fairly advanced, they are admirable, and open to but one objection; and it is uncertain how far that objection justly lies against them, since they are only a few of many sermons preached at Harrow. But it is, in our opinion, desirable to give greater prominence to such truths as centre round or are deducible from the doctrine of regeneration, even in sermons to lads whose training and surroundings have been Christian, than is the case in this volume. With that exception, these sermons are well adapted to their purpose. They are strong and forcible, but at the same time not less emphatic in insisting upon the necessity of certain more passive virtues, of which boys are apt to be oblivious. They deal with the precise perils and needs of school-life, and introduce in right degree the element of preparation for the life that will succeed the school. The preacher never assumes the *rôle* of the schoolmaster, is never lacking in sympathy with his audience, and always appears to aim at practical results in the strengthening of good character or the encouragement of such as have been overtaken by temptation to strive more resolutely against it. Minute exposition, doctrinal expatiation, and qualities of a similar kind, do not belong to these sermons, and would be altogether out of place in the pulpit from which they were preached. But the predominant characteristic is one that boys love, facility in the use of biographical illustrations which they themselves can appreciate, and especially in exhibiting the way in which science fulfils her right function as the handmaid of religion and Scripture. It is notorious that the fame of several great names in science, who have been led in their engrossment in

their own pursuit into utterances that are as dangerous as they are one-sided and unguarded, has affected the well-educated youth of the day with a widespread suspicion of the genuineness of Christianity, and even of the wisdom of any religion. These sermons may be recommended, especially when the scholarly attainments of their author are borne in mind, as a likely means of removing that suspicion; and from them, moreover, most preachers, who are embarrassed with similar difficulties in the course of their work, may learn much as to the method in which the truths of science should be employed, and the assaults of scientific men repelled. They are, with the exception already noticed, model sermons to boys, and they are very profitable reading for any one.

Kerr's Human Nature.

Essays on Some Aspects of Human Nature. By James Kerr, M.A., Author of "Domestic Life in India," "Glimpses of India," &c. Second Edition, Enlarged. London: Longmans, Green, and Co. 1882.

This little book contains four essays on subjects of interest, written in a chatty and unpretentious manner by one who has closely observed the opinions and habits of men and accumulated a considerable stock of anecdotes and illustrations. It is social rather than philosophical in its treatment and aim. And if there is not much in it that is fresh, there is next to nothing that will not be read with pleasure in the lazy half-hours, when all the mind needs to refresh it is something to occupy it with ease. Instead of discussing deep problems of consciousness, or the mysterious interactions of different faculties, our author singles out a few human tendencies, which are, when duly checked, of benefit to society, and proceeds to furnish us with certain reflections upon them of unequal value. Some are the merest commonplace, but others contribute to the settlement of questions which are now agitating men's thoughts, and all are produced with suitable remembrance of the function religion has always filled in the correction of social faults and the promotion of general goodwill.

The subjects of the first two essays are, what Mr. Kerr calls, castism and sectism. The former term he defines as denoting that milder form of caste which prevails in this country as compared with India; and the latter, as that tendency of churches to separate into groups, the abuse of which goes by the name of sectarianism. In separate chapters he examines the causes of each phenomenon, its abuses and its apology, and propounds the means which should be taken for mitigating its evils. A third

essay follows, entitled, "Contrast Lessons, or the Good of Evil in Human Life." It is chiefly an enumeration of the various uses of adversity and the benefits to character which result from its patient and thoughtful endurance. The twofold influences of bad example and surroundings, in awakening disgust at vice and in inciting to resistance and thereby strengthening the spirit in virtue, are, in our author's opinion, the principal benefits, though he does not omit to point out several other reforming features in the discipline of suffering. The fourth essay is an attempt to define genius by the synthesis of the most frequent characteristics of its possessors. It is, according to Mr. Kerr, "a special aptitude developed by special culture," which may be accepted with Bacon's approval as a sufficiently good working definition, although there may be genius of a high order where there has been no culture, and abundant culture which has yet not developed much aptitude. The same objection lies against what Mr. Kerr regards as the chief characteristic of genius, the habit of taking pains. It is a habit of the excellence of which there can be no question, but so far is it from being in marked alliance with genius, that it has been the general practice of moralists to regard the two as in most instances opposed to one another, and the former as not the less valuable in the long run. It is easy enough to find a few instances of men of great genius who, by taking pains, have managed to fill worthily spheres that were adequate to their genius. But it does not, therefore, follow that the first and most prominent characteristic of genius is such a habit. And until the ever-recurring cases, where a career of much promise is wasted through the very want of industry, are greatly reduced in number, the old problem of genius *versus* industry will not need restating.

The same faculty of hasty generalisation betrays Mr. Kerr into statements that will not bear close examination in many other matters. He often puts old difficulties in an interesting light, as when he is writing about pew-rents or the social gradation of the different churches. But it is necessary to read his remarks rapidly, and not to stop to think clearly about them. To call the religious orders of the Roman Church "sects all but in name" will do, so long as the reader hurries on without comparing the kind of relation which exists between them with the alleged analogies in Protestantism. But it is a new reading of history altogether to trace back the separation between the Greek and Latin Churches to an intense anti-Latinism in the Greek Church. And few close readers of the Bible will agree with the conclusion concerning certain theological dogmas, that "all these are questions in regard to which Scripture utters no certain sound so as to place them beyond the possibility of doubt." On the other hand, the chapter in which Mr. Kerr discusses the best means of bridging the gulf between different classes is worth very careful study;

and much that he has to say about the mischievous effect of sectarianism in foreign missionary work, needed to be said, and ought to lead to yet more strenuous efforts among the missionary societies to come to an understanding on the partition of the area which they seek to cover. There are many subjects of this sort, introduced incidentally by our author, which give his pages a zest that makes them pleasant and not uninstructive reading.

Davies's Sermons.

Sermons, Homiletical Expositions, and Leading Thoughts on Texts of Scripture. Preached in London by Thomas Davies, M.A., Ph.D. First Series. London: Elliot Stock.

The sermons number twenty-four, the "Homiletical Expositions" on the first three chapters of Revelation sixteen, the "Leading Thoughts" ten, filling altogether nearly 600 papes. The sentiment and doctrine are good, but the treatment is everywhere commonplace. There are few pages which would not supply proof of this opinion. But as brief quotations might be thought partial, and we have no space for long quotations, we must remit any curious reader to the volume itself.

Jenkins's Addresses, &c.

Addresses and Sermons. By E. E. Jenkins, M.A., President of the Wesleyan-Methodist Conference, 1880. Author of "Sermons Delivered in Madras," &c. London: T. Woolmer, 2, Castle Street, City Road. 1882.

It is needless to do much more than call the attention of our readers to the issue of this volume. Its contents, with two exceptions, consist of sermons and addresses which it fell to Mr. Jenkins's lot to deliver during the year of his presidency over the Wesleyan-Methodist Conference. Had the volume been expanded by other additions, there are none who are acquainted with the character of his public work who would have had cause to complain. Two of the addresses, and two of the sermons, derive special interest from the mournfulness of the occasions upon which they were delivered. They are the Church's public tribute to the worth of four men who will long be missed—Dr. Punshon, Messrs. W. O. Simpson and L. H. Wiseman, and Sir Francis Lycett. "The Letter to the Young People of the Methodist Connexion," and the very powerful sermon preached at the Liverpool Conference on "Tarrying for Power," are both included, and

will be welcomed in this permanent form by all who have before heard or read them. But it is unnecessary to specify the contents in further detail. In almost all of them Mr. Jenkins is at his best; and Mr. Jenkins's best is, from all points of view, of very unusual excellence. The reasoning is masterly and vigorous, incisive against all perversions of truths or morals, and irresistible in the force which it accumulates as it proceeds. The spirit is that of one who has reverently knelt at the throne as he was receiving its commission, and has thence won boldness to vindicate the ways of God without compromise, and to bear undaunted testimony against sin. And the style is chaste, crystalline, and keen. That is indeed perhaps the most obvious literary characteristic of all Mr. Jenkins's productions. He never wastes a word; and so unerring and uneasily satisfied is he in his choice of words that each word he uses is about the best that could be used. Some men choose words for the luxuriance of their suggestiveness, and some for their bulk and prodigiousness. Mr. Jenkins seems to choose them for their forcible expression of the thought he seeks to clothe. And few who have listened to his clear, almost too clear, ennunciation of truths which have evidently taken hold of his own spirit will fail to be grateful for this collection of his utterances. They are timely, aglow with earnestness, fragrant of great kindliness, and probably the best memorial of his year of office.

The Homiletical Library.

The Homiletical Library. Edited by the Rev. Canon H. D. M. Spence, M.A., and the Rev. Joseph S. Exell, M.A. Vol. I., Advent, Christmas, The Close and Commencement of the Year. Vol. II., Epiphany, Septuagesima, Sexagesima, and Quinquagesima. London: James Nisbet and Co. 1883.

There must be a demand for and, perhaps, a right use of this kind of pulpit-help, or such an abundance of it would not of late years have issued from the press. And it is certainly better for a preacher to fill up one of these outlines than to draw upon those sources whence it is rumoured ready-made sermons of every type of doctrine and suitable for any occasion may be obtained at a small cost. But a preacher is hardly worthy the name, unless he derives alike his plan and his material from his own study. And only in very exceptional instances would it be wise for him to seek in books of this character more than the merest hints. There are, of course, cases where one man can walk with grace and ease in another man's shoes. But it is as a rule indispensable to

the freshness and force of a sermon, that it be the product of the preacher's own heart and mind, fashioned by his own skill and filled up with matter out of his own crucible. As elementary aids to the young preacher in the earlier stages of his training, collections of outlines are, if of high technical quality, of considerable value. Occasionally he may find in them afterwards some suggestion, which he can appropriate, and which, when brooded over, may prove fertile in apt lessons for the pulpit. Great pressure upon him of other ministerial duties may render it excusable to avail himself more fully of their help. But there is very little further that can be said to their advantage. Of such collections this, the latest, promises to be the best. Its editors have had great experience in similar undertakings, and have admitted into these volumes very little that will not prove serviceable to some of the readers whose requirements they have had in view. No outlines that have appeared in print before have been allowed a place, and some of the most celebrated preachers in France and Germany have been brought under contribution. The list of contributors indeed contains several eminent names, and is a sufficient guarantee of general excellency. The method followed by the editors has been to take each date in the ecclesiastical kalendar, and to provide for it a large number of suitable outlines. In the case of Epiphany, for instance—and Advent is treated in much the same way—there are first twenty-five outlines upon texts selected from the canonical epistle, gospel, and lessons. The various Sundays in Epiphany are next dealt with on the same plan. Last of all come forty outlines on selected texts from any part of the Bible that are supposed to be appropriate to the festival, with a couple of sermons for children. There are twenty-five outlines supplied for the close of the year, and ten for its commencement. Six sermons on the Church Catechism are all classed under the text, "That thou mightest know the certainty of those things, wherein thou hast been instructed." In length there is as great diversity as in quality. One outline occupies almost eight pages, whilst others do not require as many lines. Ten pages are devoted to a supplementary list of subjects, in which a suitable text and the lesson that should be enforced are suggested without any amplification. And the usefulness of the volumes is increased by the addition to each of an "index of Scriptures." It will be seen that the work is planned on a very large scale, and that every possible effort has been made in it to minimise a preacher's toil. If the remaining volumes are as well edited as these, the whole will facilitate the composition of sermons and deserve to be called a homiletical library.

Bruce's Galilean Gospel.

The Household Library of Exposition. "The Galilean Gospel." By A. B. Bruce, D.D. Edinburgh: Macniven and Wallace. 1882.

This little book is not one to be read and laid aside, but to be read, and read again. It is full of fresh, limpid thought, and a brighter, fresher work of its kind we have not seen for many a day. It will help to raise the growing reputation of the "Household Library of Exposition," and must serve to excite expectation in regard to its promised fellow volume, also by Dr. Bruce, on the Pauline Gospel.

Where many good qualities claim commendation it is difficult to select, but we regard the book as especially valuable for its sound and vigorous teaching in regard to the attitude of the Christian Church to the poor, and to what is known as "evangelistic work," and for its wise thoughtfulness and liberality of tone. The expository skill of the author of "The Training of the Twelve," and "The Parabolic Teaching of Christ," is shown in many places, as for instance in the words of our Lord, "There is joy in heaven over one sinner that repenteth." "He speaks of a joy in *heaven*, not of a joy in His own heart, though that is what He has to defend and what He really means to proclaims. The reason of this is to be found in the fact that Jesus stood alone in His time in hoping for a spiritual change among the outcasts, and in regarding such a change when it took place with intense sympathy and unfeigned delight. He had no neighbours on earth, like the shepherd and the housewife, to rejoice with Him. His nearest neighbours were in *heaven*. . . . He is fain to declare to His censors: Up in heaven they understand Me, there is sympathetic joy among the celestials over the repentance of even a solitary one of these people whom ye despise, in whom I take what appears to you so unaccountable an interest."

One defect, indeed, the book shares with some other works dealing with our Lord's life—viz., the tendency to put words into His mouth, to paraphrase and expand His sayings, "for the sake of clearness," as Dr. Geikie says. Such attempts are to be deprecated on the ground of the awkwardness of the patchwork which results from uniting sentences of nineteenth-century English with the familiar and venerable words as we find them in our Bibles. But more serious grounds of objection might be urged against the practice.

Dr. Bruce's preface seems to us strangely out of keeping with the rest of this valuable little work, first in its somewhat gratuitous and ungenerous allusion to volumes of sermons which have

formed part of an actual personal ministry, "gleaned from a ministry of sixteen years and strung together by a catching title;" and in the pessimist tone which leads our author to say, "The days in which we live are trying. Unbelief threatens to sweep away all realised religious ideals, creeds, churches, clergy." Unbelief has always threatened many things, but a wise and bold use of the means God has put into our hands has done wonders in the past, and is doing wonders to-day.

Gordon's In Christ.

In Christ. By A. J. Gordon, D.D. London: Hodder and Stoughton. 1882.

This is an unsatisfactory book. Judged according to the high standard demanded by its subject, it falls far short of what such a work ought to be. It may be described as mainly a series of mystical and devotional musings. But throughout these we miss the vivid application to life which would make the book ethically fruitful. The chapter on "Resurrection in Christ" is especially open to this objection. While he condemns the saying of Dr. J. H. Newman, that "the true penitent never forgives himself," Dr. Gordon seems unable to appreciate that vivid conception of the heinousness of sin which grows concurrently with the believer's growth in the likeness of his Lord. So again in the chapter on "Baptism in Christ," where we have a manifesto from a denominational point of view rather than an exposition of the ethical meaning of the expression.

The doctrinal standpoint of the author is that of a moderate Calvinist. Again and again the germs of Antinomianism may be detected, together with an unreal mode of stating the believer's union in Christ, so that the inherent and personal righteousness of Christ is made to take the place of the personal character of the believer who is working out his salvation. Sometimes a false distinction is made, as when we are told, "he that is in Christ has no sin upon him, though he still has sin in him;" if sin is in him, guilt is upon him; if there be only the remains of the old nature, and the possibility of sin, there is no guilt. The possibility of sin is no more sin than the possibility of holiness is holiness. Sometimes the doctrine obscures the whole moral teaching of the passage, as when it is said, p. 116, the wandering (prodigal) son is not less a son than the one who abides in his Father's love.

The views of sanctification expounded by Dr. Gordon appear very defective, and must hinder the usefulness of his book. He draws glowing pictures of the brighter experiences of God's people, —experiences to be enjoyed only for a time—and then with a sigh

postpones the possession and the joy of holiness until after death. It might be asked, How came the brighter experiences to pass? Is grace unable to keep us from falling? The only answer is a doctrine of sanctification more scriptural and more helpful than that held by the author of this book.

In spite of blemishes and serious deficiencies in the work, there are passages very welcome to the Christian reader, and which remind us of the devout mysticism of Dora Greenwell's *Patience of Hope*, an author to whom Dr. Gordon confesses his obligations.

DANIELS'S HISTORY OF METHODISM.

A Short History of "The People called Methodists," from the Days of the Wesleys to the Methodist Œcumenical Conference held at City Road Chapel, London, in September, 1881. By the Rev. W. H. Daniels, A.M., Author of "D. L. Moody and his Work," &c. Revised, with Preface, by the Rev. Thornley Smith. London: Hodder and Stoughton. 1882.

THIS work is an abridgment of a larger volume entitled *The Illustrated History of Methodism in Great Britain and America.* All the illustrations are omitted, and the text is condensed into some four hundred and fifty pages. But in this case such a process has not been attended by its usual consequences. Many parts of the book, such as the short stories of the lives of some of the Methodist leaders and pioneers, are not simply interesting, but fascinating, and no part is dull. The information is generally accurate, and particularly in the description of the first introduction of Methodism into different localities is sufficiently full: and if a certain miscellaneousness sometimes discloses itself, it is perhaps an inseparable feature of a task which has for its object the enclosure within a single volume of materials which require seven, and its inconvenience might have been to a great extent avoided if the English reviser had but added an index. Written in a lively manner, with the frequent introduction of incident and anecdote, and with thorough appreciation of the marvels and heroism of the story that is being told, the book may be read with pleasure by any one who is wishful to learn how Methodism originated and grew to its present proportions.

The first half of the book is practically a short life of John Wesley, with epitomised sketches of his more eminent coadjutors. The second half is entitled "World-wide Methodism," and traces its introduction into the different provinces of the United States, the outline of its fortunes in Great Britain, and the missionary efforts which one after another it was prompted to make. Its

internal economy, and the occasional agitations by means of which its constitution has been developed or its membership disrupted, are not entirely overlooked, although the references to such matters are scanty and inadequate. But, as a rule, the author, adopting the method of one of his predecessors, prefers to devote himself to the representation of the characters and labours of the more notable evangelists. He does not overload his pages with statistics, but confines himself chiefly to those of the American centenary of 1866, the British centenary of 1839, and the first œcumenical conference. The rapid spread of Methodism may be seen at a glance by comparing the figures for the year of its founder's death with those of last year. When John Wesley died he left 550 itinerant preachers and 140,000 members of society scattered over the United Kingdom, British North America, the United States, and the West Indies. There were represented at City Road in the Conference of 1881, 32,172 preachers and a membership of 4,762,944. But to an English reader the most novel parts of the book will be those which describe the foundation, growth, and constitution of Methodism in America. He will thereby learn much which he will be unable to find in any previous history of Methodism that is easily accessible; and the volume will be welcomed both as valuable in itself and as a suitable and useful companion to the *Minutes of the Œcumenical Conference.*

The few paragraphs inserted by the English editor deal with such subjects as the missions of British Methodism and the admission of lay representatives into the annual conference, and help greatly to render the history complete; but there are several misprints which ought not to have escaped his attention, and of which one at least is curious. We are told that when Dr. Brunson was crossing Lake Erie on his way to his station at Detroit, the passengers and crew having given themselves up to enjoyment, he "happened to go on deck, and, looking up, saw a squaw coming down upon them."

BUTLER'S LIFE OF OBERLIN.

The Life of J. F. Oberlin, Pastor of the Ban de la Roche. By Mrs. Josephine E. Butler. London: The Religious Tract Society.

MRS. BUTLER has done well to revive public interest in the life and work of Oberlin, and we wish for her appreciative little work a large circulation.

No more powerful story, showing the influence of one devoted life, has ever been told than that of the famous pastor of the Ban de la Roche; for the highest prophetic strains declaring the

effect of the Messiah's coming to the people were realised in the marvellous change which came upon the inhabitants of this district. Sunk in the direst barbarism, they were raised to a state of religion such as few districts have realised, and the apostle of their redemption was Oberlin. The story of his work is told by Mrs. Butler with a graphic simplicity which increases the value of her work. The narrative is full of instruction for Christians, the shrewd common sense of Oberlin, and his quaint homeliness, being most suggestive to the active worker, while his radiant piety and sublime devotion are living proofs of the Spirit's sanctifying power in the heart of the believer. We congratulate the Religious Tract Society on the republication of such a life.

II. MISCELLANEOUS.

Armstrong's Garland from Greece.

A Garland from Greece. By George Francis Armstrong, M.A. London: Longmans, Green and Co. 1882.

Is it a fancy merely that this volume, in its inspiration, seems to carry us back for two generations, to the days when all that was imaginative and chivalrous in Europe burned to rescue oppressed Greece from the impure talons of the Turkish vulture? Those were days when, to the eye of enthusiasm, modern Greece appeared draped in all the antique majesty of the days of old, as the mother of art, of civilisation, of song, a queen in chains, a Promethean spirit unjustly bound and tortured, yet bearing the heaven-lit fire, and able again to hold it aloft as a beacon to men. But, alas, as the years have gone by, and the nations have looked, on the whole, rather vainly for the beacon light, the old separation between the Greece of to-day and the Greece of long ago has again seemed very real. Consciously, or unconsciously, the gulf to most of us is felt to be impassable. The Greece of old retains its glamour. We know and love it, think its thoughts, and glory in its memories. A glow of perennial sunshine lingers there, an undying dawnlight to which we turn again and yet again. But as regards modern Greece, our information is decidedly less precise, and our interest not so affectionate.

For Mr. Armstrong, however, this distinction appears to exist in a very modified degree. To him, as he has gone riding through the land, listening to the

"Tinkle, tinkle, tinkle, tinkle"

of the mule bells, the present, and the past that is only of yesterday, have had an attraction almost equal to the past that is of long ago. His verse assumes quite a joyous lilt as he sings:

"How bright were the bays with their burthen of skiffs,
With rowers in sashes of scarlet upstanding,
And little white sails darting onward in whiffs
Of the breeze from Albania! How gay at the landing
The crowds of the gazers in fez and capote,
Fustinellas and slippers,—the white Epiròte,

And the Greek swaying down with ineffable swagger,
Ionian and Turk and red Montenegrin,
Fierce-eyed and alert, with a hand on the dagger,
Or pistol that peeped from the girdle half seen!

"O the scenes as we passed up the markets and lanes,
Amid trays of bright oranges ruddy and golden,
And strawberries cooled by the light summer rains;
Amid groups of grave islanders wrinkled and olden,
And strings of meek mules heavy-laden with fruits
In panniers a-swinging, and sailors in boots
And red capes of Naples, and priests with long tresses
Twined back in their hats; amid booths and brown bread,
And stalls with ripe cheese, or Greek prints from Greek presses,
Till out through the gates to the mountains we sped."

And this Greece of to-day, by how little it stands removed, in Mr. Armstrong's kindly gaze, from the Greece for which Europe fought at Navarino, for which Byron gave his life. Does not the *Brigand of Parnassus*, hale and strong though the weight of ninety years is upon him, cry to whomsoever will hear:

"I handled sword and gun
When your fathers were but sucklings, ere your mothers saw the sun.
I have fought the Turk and beat him; and will fight and win again,
Win or die; and Greece shall triumph—not a life be spent in vain!"

Aye so he cries, this somewhat rascally old patriot, with his story of loot, and revenge, and murder in cold blood, and rescue of maidenhood, and thrilling adventure. Ninety years! Fifty might carry one as far back as the time of Mr. Armstrong's predilection, the time of *the Klepht's flight* from his leagued companions, the time when *the Chiote* loses his wife amid a scene of massacre and blood, loses his child, which

"Lacked the mother's warmth of breast,
And sank into an icy rest."

and takes vengeance against the Turks on the fire ships of Kanaris,* the time of *the last sortie from Missolonghi*. Less than fifty years would probably take us to the time when the *Hermit of the Cape*, a kind of modern Simon Stylites, is supposed to drain down the dregs of his fevered life.

Thence, by a long leap, Mr. Armstrong carries us back to "A.D. 390 Circiter," and the "closing of the oracle at Delphi;" and being now near to classic days, speaks through the mouth of "Micanor" of the "Death of Epicurus." This is the old sage's last legacy of wisdom to the world:

"Dream ye as seldom of the listless gods
As they of you. So shall ye rid your hearts
Of fears and measureless disquiet. They
Heed not your tears or scorn, neglect or praise.

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* The subject of one of Victor Hugo's early poems.

Far off they dwell, beyond the utmost trail
Of wandering star, and in the cold white heaven
Enjoy their changeless peace."

* * * * *

"Think not of them except to emulate
Their calm, and in like quiet be as gods."

So, in lines which one may quote again and yet again, without weariness, does Mr. Tennyson make the dying Lucretius tell of:

"The gods, who haunt
The lucid interspace of world and world,
Where never creeps a cloud, or moves a wind,
Nor ever falls the least white star of snow,
Nor ever lowest roll of thunder moans,
Nor sound of human sorrow mounts to mar
Their sacred everlasting calm! And such
Not all so fine, nor so divine a calm,
Nor such, nor all unlike it, man may gain
Letting his own life go."

Does this juxtaposition imply a touch of unkindliness on our part? Let us make amends by saying that it is in this portion of Mr. Armstrong's book relating to the older days or fancies of Greece that we have found most pleasure. The *Satyr* and *Orithyia* seem to us decidedly the best poems in the volume. Such lines as:

"A prattle like rain in the poplars, a laughing of silvery leaves."

or again:

"And over the reefs and the headlands the billows in thunder broke."

have in them a decided gleam, a flash of real poetic fire.

But, as we have already intimated, the originality of Mr. Armstrong's inspiration dwells less in these studies from the antique than in the signs of his affection for the Greece of to-day and yesterday.

AUSTIN'S SOLILOQUIES IN SONG.

Soliloquies in Song. By Alfred Austin. London: Macmillan and Co. 1882.

IT was in the consulship of Plancus, now, alas, many years ago, that Mr. Austin's first volume of verse fell into our hands. Fools were then his theme, and satire was his song. And though, as we have said, much time has flown since then, yet still there go darkling in our memories one or two vigorous lines that lashed the follies of "The Season," and—or was that in the pamphlet written in fierce defence of "The Season?"—a rather boyish attack on Kingsley's "erotic poems."

But this, we repeat once more, carries us back to the years long since evanished, when, if our memory does not play us false, Mr. Austin filled high office among a band *quorum pars minima fuimus* who "held debate" on many political matters. *Now* his Muse is much appeased. She is no longer strident of voice, fierce in invective, scornful of gesture. Or if she at all puts on her more terrible aspect, it is but very fitfully, when, for instance, crying shame on "Prince, Press, and People," for being "like unto mongrel hounds beaten and cowed," who yell "All hail to the Czar!"

No, mainly she is a conservative muse—indeed, this very poem of "All hail to the Czar" but represents her militant conservatism. She is conservative not alone in political opinion, lingering with dire sorrow, and votive flowers of song, in Hughenden churchyard, where—

> "Now in an English grave he lies,
> With flowers that tell of English skies
> And wind of English air,
> A grateful sovereign decks his bed.
> And hither long with pilgrim tread
> Will the English race repair."

But she is conservative also in her general outlook on life, in social feeling, in religious sympathies. She stands as far as possibly may be in the old paths.

Thus "Grandmother's Teaching" is to the effect that the gospel of getting on is fraught only with sorrow and vexation of spirit, that the old homely country life is better than the strain and struggle, the feverish ambition and evil temptings, of the city. Thus, in "A Farmhouse Dirge," there is throughout an echo of the old kindly relations between farmhouse and hall. Thus, in the story of "Brother Benedict," who had slept for a thousand years, and woke, as was indeed to be expected, in a much changed world, we have for final word, for a sort of *envoye*, that the "eternal strain" running through

> "To-day, to-morrow, and yesterday"

is "Benedicite." Thus, again, in the poem on George Eliot's death, we find discarded that newer faith to which she clung, the faith in a "choir invisible," whose singing, nay, whose "life," is to be no more than a memory—we find an insistance on the older faith in a life immortal:

> "What we call death
> Is but another sentinel despatched
> To relieve life, weary of being on guard,
> Whose active service is not ended here,
> But after intermission is renewed
> In other fields of duty."

There is a certain healthiness and whole-heartedness in all this not a little pleasing after the poetry of disease which the poetical critic has to consume in pretty considerable quantities. Indeed, there is in the volume nothing that can be described as mawkish or morbid. Even where, as in "Off Missolonghi," we feel inclined to demur to the sentiment expressed—for Byron's death on the bed of sickness was as truly death for the cause of Greece as if he had died on the battlefield—even here we feel that the opinions expressed are worthy of all respect.

Bone et Fidelis.

Bone et Fidelis: a Poem. London: Elliot Stock, 62, Paternoster Row, E.C. 1882.

Under an unfortunately vague Latinised title—*Bone et Fidelis*—this little volume gives us a versified account of the life and labours of a deceased Wesleyan minister, apparently by his son. With the exception of the rhymed preface and two hymns, it is written throughout in heroic couplets. The verse usually possesses a certain smoothness and elegance, though never perhaps rising to poetry. There is too obviously an effort, an intention, as if the author had said to himself, I will write this, I will write that, not because I have in me the uncontrollable divine *afflatus* which bids me sing and inspires me for singing, but because I wish to describe certain things which interest me, and which may as well, perhaps better, be described in poetry than in prose. This mood does not produce great poems, but it may, and in this instance it does, produce agreeable verse, which is usually graceful and often eloquent. As an example of the former quality, we may mention the section headed "Euge, serve bone," or the "Conclusion;" as an example of the latter, "The Evangelisation of the World." The section which deals with "The Orator" (who will readily be recognised by most readers) is too excessive in its praise to delineate with any accuracy the person whom it attempts to describe. He would be a "golden mouth" indeed of whom it might without exaggeration be said that—

"His lips with wreaths of scented flowers are wove,
And graceful fancies o'er his forehead rove;
A halo hovers o'er his head, and light
Laughs in his sparkling eye like stars in night.
His tongue is golden, and his jewelled words
Rival the euphony of singing birds,
And sparkle with the splendour of a gem
On the king's finger, or his diadem;
Or rush with such impetuous force and roar,
The sea seems sounding on the pebbled shore;"

With over fifty lines more to the same effect, ending with—

> "Lo! draw near,
> God is made manifest! Appear! Appear!"

The author is less ambitious and more natural when he speaks of the Institution, the Superintendent and Circuit Ministers, the Local Preachers, the Class-Meeting, and the Home. Some of these are depicted with a very fair measure of success; and as the subject of the whole—the life and death of a Methodist preacher—is new, to our knowledge, in rhyme, and our author is first in the field, we see no reason to doubt that the book will receive its due meed of popularity and esteem from those who are most intimately interested in the matters of which it treats.

ALISON'S AUTOBIOGRAPHY.

Some Account of my Life and Writings: an Autobiography. By the late Sir Archibald Alison, D.C.L. Edited by his Daughter-in-law, Lady Alison. Two Vols. Blackwood.

AT his death Sir A. Alison held the office which he had long filled of Sheriff of Lanarkshire. He had found the office no sinecure. During the year 1838 there was bitter ill-feeling between millowners and cotton-spinners of Glasgow. Assaults on the new hands took place continually, and at last one of them was shot through the back by two hired assassins, "without one of the numerous persons by whom the deed was witnessed venturing to seize the guilty parties." Convictions were almost impossible, owing to the extreme difficulty of getting witnesses to come forward; convicted persons got a bag of sovereigns to reward them for their imprisonment; and trial by jury was too hazardous to be attempted from the terrors and intimidation of the jurymen. Altogether a state of things not at all unlike that which in Dublin preceded the passing of the Crimes Act. Sir Archibald, by one of the most successful *coups de main* ever made, got hold of the whole secret committee, and, with the aid of twenty police, lodged them in gaol. The process throughout is in many respects like what has been going on in Dublin. A reward of £500 brought out two informers, who detailed the whole plan, gave the lists of those who were to be murdered, explained all the complicated arrangements by which the man told off to do the deed was provided with money, arms, &c. It was then easy to seize the committee, which, all unsuspecting, met at its old haunt. Sir Archibald's firmness destroyed all this network of conspiracy, and three days after he had arrested the committee he had the satisfaction of seeing all the tall chimneys, which had not been lighted for

three months, smoking in renewed activity, and of reflecting that over 30,000 people were suddenly lifted from idleness and destitution to industry and comfort.

What we want to call attention to is, that this well-timed severity made Sir Archibald extremely popular with the working class. The people were tired of the strike; and they instinctively felt they could trust their sheriff's fairness. He, the most uncompromising Tory, was followed everywhere with the applause of the Glasgow Radicals; and at his death the whole of the road between Possil House and Glasgow was lined with the poorest of the population, "all the mill-hands in the neighbourhood sacrificing half a day's earnings to come and pay, with quiet respectful demeanour, the last tribute to the old Tory sheriff so well known to them for thirty-three years."

This is certainly an instance of a man winning the goodwill of political opponents, bitterly hostile to the class to which he he belonged, by a steady and undeviating uprightness. The marvel is that Sir Archibald, who thus in his public capacity won golden opinions from men of widely differing views, did not impress other Tory writers with such a high opinion of his merits. He wrote regularly for *Blackwood.* Some of us remember the slashing way in which he upheld the cause of Protection when Free-trade seemed winning all along the line. But, if we remember rightly, he never got anything into the *Quarterly;* of one article he bemoans the sad fate; it was sent for insertion, and never more heard of. Worse than this, the *Quarterly* did not deign to notice his History, though an elaborate review of it appeared in the *Edinburgh.* John Wilson Croker was a man who brooked no opposition; and he had in hand a history of the French Revolution which Alison's History forestalled. Hence the annoyance which showed itself in contemptuous silence. If, however, he was neglected by a large section of his party at home, he had the satisfaction of seeing his work immensely popular abroad. In America it was largely read; and it was soon translated into half a dozen languages including (we believe) Turkish.

The work before us is a gossipping account of the author's whole life. Here and there its diffuseness seems to warrant Lord Beaconsfield's sneer (in *Lothair* he speaks of "Professor Wady who wrote seven volumes to prove that Providence is on the side of the Tories"); but it is full of freshness, albeit dealing in the chapters about foreign travel with subjects that have since become hackneyed. Then they were not so. The number of visitors even to France was small, and men in Edinburgh society who had been twice to Rome might be counted on the fingers.

Sir Archibald was a believer in heredity, and delights in claiming kinship with what Dugald Stewart calls "the long

and memorable line of the Gregories," and also with Reid, "the father of the Philosophy of Mind." His mother, after her father's death, was adopted by Mrs. Montague, at whose house in Hill Street, Berkeley Square, and during visits with her to Paris, she met all the celebrities of the time, French as well as English. His father, for whose sake Miss Gregory rejected more than one very advantageous match pressed on her by Mrs. Montague, was clergyman of Sudbury in Northamptonshire, where he wrote the well-known "Essays on Taste." Of his college life at Edinburgh, Sir Archibald tells us everything—how one of his translations was marked by the Professor with "Macte virtute, puer; sic itur ad astra;" how he lay awake a whole night trying to solve a problem in conics, and succeeded *in the dark;* how in the dark also he once extracted a square root without a figure wrong to eight places of decimals; how he got the first prize in Greek in 1808, the first year when prizes were given at Edinburgh; how he competed with Edward Irving for the mathematical, and shed tears of vexation at not being able to solve problems while shut up from 9 a.m. till 8 p.m., which he solved in half an hour after he got home at night; and how Professor Leslie, rather unfairly, gave him a second chance the next day. He next took to Political Economy, reading among others Malthus, whose fundamental proposition his father showed to be fallacious, as he afterwards proved at length in his "Essay on Population" of which even at that early age (sixteen) he wrote the rough draft. Edinburgh must then have been a grand educational forcing-house. Listening to Playfair and Dugald Stewart in the day, and at night making a fair copy of his rough notes of each, was hard work; and all that was written down (twenty-six bound quarto volumes it amounts to) might have been found better expressed in books, "but" (asks Sir Archibald) "is the power of writing four or five hours every evening to be found in books?" And this power alone enabled him to get through the mass of his law business at the same time that he was keeping up his literary work. Much intellectual good he got from his father's sermons, though he admits that the author of the "Essays on Taste," never able to rid himself of the poison of Rousseau, had too high an opinion of human nature—"had not enough of the devil in him to find the devil out." It was his father's favourable estimate of his first draft of the "Essay on Population" that turned him to the Bar instead of into a Bank. The work was finished in 1810; and his father, though astonished at its extent and exhaustiveness, begged him not to publish till it was quite matured.

Very interesting is Sir Archibald's contrast between the Scotch and English University system. He had never written a Latin verse nor a sentence of Greek prose; his Latin prose was far from polished; but he had read most of the classics and

knew French and Italian (which latter he recommends to young men—he learnt it in a fortnight), and had gone deeply into pure and mixed mathematics. The Scotch system he thinks the better for those whose fortunes are not already made. Amid all this work he carefully kept up his *physique*, by daily gardening and by walking tours in the Highlands. So good a walker was he that, on the day when the news came of the Battle of the Pyrenees, inspired by the roar of the Castle guns and the intelligence in the *Gazette*, he (with his brother) walked twenty-five miles without drawing breath, and then after five minutes' rest did the remaining ten to Rochester, finishing the whole in nine hours, and coming in in good heart, though footsore. His plan of study was remarkable. In the winter he worked hard at law; in summer he gave two hours to law, and then did some Greek, Latin, Italian, French, English, every day—from one hundred lines to half a book of Homer, half a book of some Latin author, a few chapters of French, fifty pages of Gibbon or Hume, &c. His plan was to economise every moment, and never study more than an hour or an hour and a half at one sitting. He thus had two hours a day for drawing, and the same for both riding and walking. "It is continuity of pursuit, sameness of effort, which wears out both mind and body."

In 1814 he made his first continental trip. Boiling with enthusiasm, as all Edinburghers were, at the idea of the allied armies in Paris, Archibald and his brothers, with several friends, hastened to Paris, noting on the way the extraordinary contrast between England and Scotland in the way of culture; in England it seemed an unbroken stretch from Berwick to Dover, in Scotland there is rarely more than ten square miles of fertile land in one place. In France, more even than the Cathedral at Beauvais, they were struck with a regiment of Russian cuirassiers in the principal square. Outside the Louvre were more Russian troops, while inside were the Apollo Belvidere, the Venus de Medicis and other treasures, afterwards restored to their rightful owners. An introduction to Sir Jas. Wylie, principal physician to Alexander, gave the young Scot access to that Emperor, and through him to most of the celebrities. They noticed the jealousies between the Allies, the way in which the Austrians—*les autres chiens*, as they were called, were laughed at; the difficulty with which Lord Castlereagh, by dislocating Bernadotte's army, prevented a break up of the whole. They noticed, too, the strange and undoubted popularity of the Bourbons and of Wellington.

We wish we had space to tell what he says about the plan of his History; about his entry into politics (how shrewd is the remark that the leaders of the Whigs, though supposed to combine all the talents, were all cut after the same pattern, and with wearying monotony used the same passwords); about his efforts to

ameliorate the artisans, who in those days spent some 70 per cent. of their wages in drink. What he says about the American Civil War will be interesting even to those who do not agree with him in his Southern proclivities. His views about Free-trade are well known; the cotton famine (he said) was a slight warning of the distress which would follow a rupture between us and any of the Great Powers. But the most interesting feature of his later life is the number of prominent men with whom he is brought in contact, from Archbishop Howley, with whom he often dined when in London, to rugged Lord Clyde, who had taken such a fancy to his sons when they were his aides-de-camp in the Crimea. There are, too, in these volumes passages quite equal to anything in the history; the account for instance, of the execution of Doolan and Redding at Bishopbriggs is a grand piece of sustained description. Altogether, though Sir Archibald will not be classed by any except partial friends among our foremost men, his life is full of interest, and brings us on every page into connection with remarkable people; and the easy way in which the writer assumes that his reader will care to know even the least trifle about him, and his ways of thought, makes it delightful reading.

ANDREW FULLER.

Men Worth Remembering. "Andrew Fuller." By his Son. London: Hodder and Stoughton.

FULLER of Kettering is well "worth remembering," not only for his own sterling character, but also as a type of the Nonconformist ministry of the past. He was emphatically a strong man, physically, intellectually, morally. Born at Wicken, Cambridgeshire, in 1754, his early religious life was spent amid Calvinism of the hardest school. Neither his minister nor fellow-worshippers thought it right to urge the unconverted to conversion. One of his earliest battles was with this extreme Calvinism. With little help from books and none from associations he fought his way to a wider creed. Called at twenty-one to the pulpit at Soham, in the congregation in which he had always worshipped, he trained himself by seven years of labour there for a more than thirty years' ministry at Kettering, with which his name will always be associated. He belonged distinctly to the old school of Puritan expositors, who dealt rather with the matter than the wording of Scripture. Although the old marrowy expositions have gone out of fashion, they will not improbably return into favour. A combination of the old and new methods of preaching will be better than either the old or new alone. Besides his continuous work

as pastor, his labours as one of the founders and the secretary of the Baptist Society were enough for a single life. He had not only to receive and administer, but also to collect the income over the whole area of Great Britain. His journeys for this purpose were frequent, long, and in those days laborious. Fuller will always be remembered as the lifelong friend of Carey and the other Serampore missionaries. He found some of the most generous supporters of missions in Scotland. We are told of two visits to that country, each of which yielded about £1,000. Of his high conscientiousness many proofs are given in the biography. He died on a Lord's day, May 7, 1815, in a room immediately adjoining the sanctuary in which his people were worshipping God. He went direct from joining in the earthly to join in the heavenly worship.

Morison's Macaulay.

English Men of Letters. "Macaulay" By J. C. Morison. London: Macmillan.

In the present volume the series maintains its high standard of excellence. Both in the subjects and writers the series has been exceptionally fortunate, the subjects covering the best portion of the vast field of English literature, and the writers being specially suited for their task. The series can scarcely fail to promote interest in our best literature. Whether we agree or not with Mr. Morison's praise and blame of Macaulay, both pitched in a high key, we cannot question the ability of the criticism. We quite agree with Mr. Morison in his wish that Macaulay had confined himself entirely either to politics or literature. He did just enough in both fields to prevent his rising to the highest rank in either. If he had given himself entirely to literature, he might have come nearer the goal he aimed at, although as Mr. Morison reminds us, Macaulay would have needed 150 years to carry out his plan on the same scale and at the same rate of work. For all that relates to Macaulay's personal character and for his style Mr. Morison has nothing but praise, praise which often sounds almost extravagant; for all that relates to the substance of his mind and writing nothing but condemnation. We are told again and again that Macaulay was utterly destitute of philosophic power, and that his writings lack depth. He describes but does not explain. As the praise bears only on the form, and the condemnation on the matter, the criticism is very severe. The brilliance is declared to be merely superficial. If so, it is hard to see how Macaulay can retain even the middle place claimed for him by the biographer. His great merit is said to

be that he made history readable, as readable as romance. It is justly said, however, that his essays struck out a new line, and his speeches are masterpieces. To say that, "as to his conduct in his own home he appears to have touched the furthest verge of human virtue," and that "his action might put the very saints to shame," is somewhat strong. To "kill his adversary dead" is also a singular phrase.

Cutts's Charlemagne.

The Home Library. "Charlemagne." By the Rev. Edward L. Cutts, B.A., Author of "Constantine the Great," &c., Hon. D.D. University of the South U.S. With Map. Published under the Direction of the Tract Committee. London: Society for Promoting Christian Knowledge.

The Society for Promoting Christian Knowledge does much better with its historical monographs than with its tracts. The latter, even in the opinion of many of its steady supporters, are stamped with dulness, the former are always carefully written and full of information, and sometimes rise to the rank of scholarly works, such as half a century ago would have been ushered into publicity with a great flourish of trumpets.

This is especially the case with the series of works on English History, of which Professor Rhys's *Celtic Britain* is a sample. Then, again, there is the *Fathers for English Readers* series—"Leo, Gregory the Great, Ambrose," and the rest, for 2s. each, and all by men of some note, though not of such European fame as Professor Rhys, or of such renown for captivating style as Mr. Grant Allen. *Ancient History from the Monuments* again, is an excellent series; the names of the late George Smith, who did the volumes on "Assyria and Babylonia," and Dr. Birch, who compiled the "Egypt," being sufficient warrant for its excellence. Such series cannot fail to raise the standard of information among the rising generation, and to cultivate in them habits of intelligent thought on subjects of which their parents were necessarily ignorant. In all this the Society is doing a great work, and one for which all Christians ought to feel grateful. Books of this kind are very different from the slipshod untrustworthy productions, which were often the only books accessible to those who had not leisure to go to original authorities.

And Mr. Cutts's "Charlemagne" is a case in point. We all of us have a hazy notion of Charlemagne's work, but for only a very few is he more than a name, albeit, scarcely so unsubstantial a one as Pharamond or Meroveus. Mr. Cutts does not undertake to throw any new light on the work of the great emperor and administrator. He shows us Charlemagne at home, in his campaigns, among

the scholars with whom he loved to surround himself, he traces his relation to the Pope and his connection with ecclesiastical affairs. But his book is much more than a mere life of Charlemagne. Recognising the truth that in order to understand him one must understand the era that led up to him, Mr. Cutts begins with a description of the Franks, their inroads into the empire, and their banishment to Holland by the Emperor Aurelian, A.D. 242. The way in which these Franks survived their tremendous defeats by the Romans is marvellous. Probus is said to have killed 400,000 of them and their allies. Constantine carried off two of their kings and thousands of their warriors to Treves, where, in honour of his victory, he held the famous *Ludi Francici*, and gave his prisoners to the lions. Saliaus, by the way, Mr. Cutts takes to mean dwellers by the Sal or Yssel. Meroveus got his kingship by being on the side of Ætius, along with the Visigothic Theodoric, at the great battle of Châlons. His rival was among the allies of Attila. The chapters on the settlement of the barbarians and on Roman Gaul are models of clear and terse writing. The position of a Teuton in Gaul was in some respects similar to that of an Englishman in India; and if a native nobleman in Oude or Rajpootan was to write a set of letters on social matters, they would have much in common with those of Sidonius. The elegant luxurious Roman life was still going on in southern Gaul as if no Gothic king kept his court at Tholouse, as if no Gothic garrisons were established here and there through the land, and no Gothic "guests" (like our "residents") were quartered on the great proprietors. These barbarians, "blue-eyed, fresh-complexioned giants, whom we ridicule, and despise, and fear," dominated the political life of this Roman society. It is not till his fourteenth chapter (the book contains twenty-four) that Mr. Cutts gets to Charlemagne; and after rapidly tracing his wars with Lombards and Saxons, and Huns and Saracens, he leads us to Charles's crowning as emperor by Leo III., and has a few good paragraphs on its significance. The chapter on the revival of learning sets us face to face with Paul the deacon, Alcuin, and Clement of Ireland. The chapter on Charles's ecclesiastical work includes the iconoclastic controversy, and the history of the *Filioque.* In regard to the recent versifying by Lord O'Hagan's son of the song of Roland, it is interesting to read in Mr. Cutts the real story of the Spanish invasion. It was the Gascons (not the Saracens) who fell on Charlemagne's rearguard, slaying among others Eggihard the seneschal, Anselm the count of the palace, and Roland, governor of the Breton march. Here is a description of the emperor—one of the grandest figures on the world's canvas:

"His dress was that of his nation, that is to say, of the Franks. Next the skin he wore a shirt of linen, and drawers of the same

material; over that a tunic bordered with a silken fringe, stockings fastened with narrow bands, and shoes. In winter, a coat of otter or martin fur covered his shoulders and breast. Over all he wore a blue mantle." From the monk of St. Gall we learn that the Franks generally had adopted a short cloak, but that Charles still wore the long and ample cloak of the ancient Franks. "Of what use," he would say, "are these short mantles? I cannot cover myself with it in bed, and on horseback it does not protect me from rain or wind." Perhaps he was not conscious that the long and ample cloak became his tall and portly figure, and distinguished him like a royal robe amidst his short-cloaked courtiers. "And he was always girded with his sword, whose hilt and baldrick were of gold or silver. Sometimes he wore one enriched with precious stones, but this was only on the most solemn festivals, or when he had to receive the deputies of some foreign nation. He did not like the garb of other peoples, however handsome, and would never wear any such, except at Rome, when first, at the request of Adrian, and then of Leo his successor, he allowed himself to be clad in the long tunic, the chlamys, and the sandals of the Romans. At the great festivals his dress was embroidered with gold, and his shoes adorned with precious stones, a brooch of gold fastened his mantle, and he went crowned with a sparkling diadem of gold and gems; but on other days his dress was simple and differed little from that of the people."

Hasell's Tasso.

Tasso. By E. J. Hasell. Blackwood.

Tasso is another volume of the "Foreign Classics for English Readers" series. It is remarkable that, despite the very interesting circumstances of his life, and the deep influence which his great poem had on our own Spenser, our interest in Tasso has not been so great as in several of his compatriots. While Dante has found many translators, the *Jerusalem Delivered* is still chiefly known from Fairfax's version. Even Petrarch and Ariosto have, we fancy, found more translators than Tasso, the reason being, no doubt, that *The Fairy Queen* is so similar in many points to its prototype as to make acquaintance with that prototype seem superfluous.

Mr. Hasell enters very fully into Tasso's life, detailing his early poetic attempts, the *Rinaldo*, for instance, written when he was eighteen years old, its hero being borrowed from Boïardo and Ariosto, and then discussing his life at Ferrara and the episode of Leonora of Este which possibly led to his imprisonment. The relations between the two Mr. Hasell proves were purely Platonic; and the imprisonment did not take place till

after the poet who had fled from Ferrara and visited several other courts had returned to his old master. The excuse made for his imprisonment was his being mad; and certainly his most enthusiastic admirers must own that his conduct was often very strange and his temperament melancholy to the verge of being morbid. A consequence of his imprisonment was that he greatly altered (and by no means improved) his poem, cutting out all the parts which had laudatory reference to the Este family. Of the poem Mr. Hasell gives a very complete analysis, with translations, some from Fairfax, some by himself. He also analyses at some length the later poems, including the *Jerusalem Conquered*, and the tragedy of *Torrismonde*, as horrible in subject as the Œdipus of the Greeks. He also gives some interesting quotations from Tasso's prose writings. This is the way in which he sums up the case as to the poet's mental condition: "Phrase it as we like, there can be no doubt that Tasso's brilliant and unique talents were hindered from bringing happiness to their possessor by a most irritable nervous organisation, and by the want of calm judgment. His evidently constitutional predisposition to melancholy was aggravated by his beautiful mother's early death, by his father's exile and misfortunes,—in all probability also by his own love placed too high to be happy, and by his consequent exclusion from those domestic joys at which we at times find him casting a regretful glance; by his experience of human malignity, by his religious doubts, and by the cruel treatment which he met with. And who can wonder that, after his resurrection from the ghastly sepulchre which entombed his manhood at its perfection, and his fame at its height, he shunned the crowds who misjudged him, loved little the life which had disappointed him, and turned more steadfastly than in youth to the only hope which does not shrink in size before sickness and advancing death?"

We strongly recommend those for whom Dudon and Armida and Herminia and Clorinda and Argantes are mere names, to read the analysis of the great poem. Few things more pathetic have ever been written than Clorinda's single combat with Tancred and her baptism *in articulo mortis* by the lover who has unknowingly given her her death wound. Here is a specimen of Fairfax's rendering. Godfrey is speaking at the grave of Dudon slain by Argantes.

> "We need not mourn for thee here laid to rest,
> Earth is thy bed and not thy grave; the skies
> Are for thy soul the cradle and the nest;
> There live, for here thy glory never dies.
> For like a Christian knight and champion blest
> Thou didst both live and die. Now feed thine eyes
> With thy Redeemer's sight, where crowned with bliss
> Thy faith zeal merit well deserving is."

MUNRO'S ANCIENT SCOTTISH LAKE DWELLINGS.

Ancient Scottish Lake Dwellings or Crannogs, with a Supplementary Chapter on Remains of Lake Dwellings in England. By Robert Munro, M.A., M.D., F.S.A., Scot. Edinburgh: David Douglas. 1882.

WHATEVER view is taken of the antiquity of man, the lake dwellings, of which the Swiss are, perhaps, the best known, must remain equally interesting to an archæologist, and Dr. Munro does for those discovered in Scotland what Dr. Keller (well known through his more than translator, Mr. J. E. Lee) did for the Pfahlbauten (stake buildings) of Switzerland, and what Sir W. Wilde (father to Oscar) did some years before for the crannogs of Ireland.

Dr. Munro's book is, like so many others by the same publisher, beautifully got up, the type and paper perfect, and the woodcuts and plan executed with patient care. The Scotch lake dwellings have hitherto been chiefly found in the south-west, and it was the Ayrshire and Wigtonshire Archæological Association which, with the help of R. W. Cochran-Patrick, M.P., started the researches. Such pile buildings are spoken of by Hippocrates and Herodotus, though (strangely enough) the Swiss Pfahlbauten, in use at least up to Roman times, are not noticed by any historian. They are found in Borneo, in Malacca, on Lake Maracaybo; while both Cameron and Burton speak of their existence in Africa. It was in 1839 that Sir W. Wilde discovered the crannog of Lagore in Meath, and predicted that others would be found when draining was carried on on a larger scale. This has been the case, and the abundant instances have been described by Reeves, Wakeman, G. H. Kinahan, and other Irish archæologists. They are repeatedly mentioned in the old Irish chronicles, and in Wakefield's "Ireland" (1812) attention is called to them; but Wilde's discovery seems to have been made independently, stimulated by the finding of a canoe ("a dug out"), forty-two feet long, in Lough Owel (Westmeath). No wonder they are largely found in Ireland and Scotland, for in the former they were in full use up to Cromwell's time, while in the latter Edward I. put a garrison in the crannog or "lake isle, with log huts," of Lochindorb, in Moray, which was afterwards relieved by Edward III.; and the crannog Loch Cannor, in Aberdeenshire, in which some beautiful bronze cauldrons have been found, was destroyed in 1628 by order of James VI. Their use is described by an old writer: "In times of trouble or war, children and goods could be easily defended in them." The amount of timber employed in one of these artificial islands may be judged from the fact that piles of from seventeen

to twenty feet long were driven into the lake bottom to within from five to six feet of their whole length, while the enceinte was formed of huge flat beams into which the uprights were mortised. How elaborate was the work may be judged from the following account of the crannog at Lochlee, in Ayrshire, explored in 1878 by Dr. Munro and several friends. It reminded our author of the "strong frames of black oak neatly joined," said to have been found in 1765, when Carlingwark Loch, Kirkcudbright, was drained, though in both cases unbelievers said the remains were only "piles put in in auld time to steep lint."

"Surrounding the rectangular log pavement, and just touching its four corners, we could trace a complete circle of firmly-fixed, upright piles, arranged in two rows from two to three feet apart. They were all made of oak, apparently young trees, and projected several feet above the surface of the pavement, some of which were observed on the grassy surface of the mound before excavations were commenced. The most important thing, however, about them, was the mode in which they were connected together by transverse beams, similar to, but ruder than, those already described as found at the north-east corner of the outer trench. Some of these beams were bevelled at the ends on their upper surfaces, especially the outer ends, and had two holes, one at each end, through which the pointed ends of the uprights projected." It is worth while to describe the mode of working during these explorations. In a square shaft three men were digging, while two pumped out the water. Many layers of brushwood and big trees were found; the trees laid parallel to each other, but transverse to those above and below. They were birch and oak, joined with oak pins, the whole as soft as cheese. Below the lowest logs some hazel brushwood was found embedded in the peaty silt of the lake bottom, this being sixteen feet below the surface of the field over which the lake had once spread. A few sentences will further illustrate the plan of operations.

"At a portion of the outer trench there was found, about a foot under the surface, a rude wooden platform, resting on a completely solid basis, which was then naturally enough supposed to be the surface of the artificial island, and towards the centre a series of at least four hearths one above the other. Now the level of the lowest hearth was about three feet below that of the wooden platform. What was the cause of this difference in level? Did the central portion sink from the weight of the superincumbent mass, or was it originally constructed so? . . . It was evident that nothing short of the removal of a large part of the central *debris* would be sufficient to give a correct idea of the log pavement and its surrounding structures, and disclose the treasures supposed to be hidden in it. Removing the soil between the outer trench and the space cleared in the interior was a work of

many weeks, of great toil and labour, and of much and varied comment by outsiders.. . . Having collected the chief facts about the log pavement, we determined to make a shaft at its lower end, *i.e.*, about the centre of the crannog, to ascertain the thickness, composition, and mode of structure of the island itself."

The finds in these crannogs have been many and various, though by no means equalling the multitude of objects discovered in the Swiss Pfahlbauten. We may remark that it was the Swiss discoveries which set Scotch archæologists on investigating the objects which (as in the case of Carlingwark Loch aforenamed) had been already noted for them in the "old statistic account of Scotland." The earliest Swiss discoveries were in 1853, when the Zurich Lake, being unusually low, the inhabitants of Ober Meilen took in bits of land on its edge, filling up the spaces saved with mud dug out of the shallows. The earliest Scotch explorations were in 1857, on the isle of the Loch of Banchory, where St. Ternan was buried; and were described by Dr. Jas. Robertson in *Chambers's Cyclopædia.* Stone and glass rings, vitreous paste beads, leather shoes with ornamental stamped pattern, a bronze lion forming a ewer, the tail turned back to make the handle; bone needles, some with the eye in the centre, singularly like sewing machine needles; iron saws, horses' bits partly of bronze; fibulæ, leather studded with bronze nails, carved wood, abundance of stone implements, and *moss girdles*, like those of other materials worn by so many savage tribes, and not dissimilar to the *sporran* of the modern fancy Highland costume. An elaborate bone comb was found in the crannog of Loch Buiston, near Kilmaurs, a place which the sceptics said was "nothing but the site of an old whiskey still." Dr. Munro describes the finds in the Loch of Lotus, Kirkcudbright, and in Tolsta, in the Isle of Lewis, but his longest and most elaborate account is that of Lochlee, from which we have already quoted, and which is illustrated with sketches of the mortised beam arrangement of the log pavement, and the wood structures which surrounded it, &c., whereby the whole thing is brought vividly before our eyes. In the refuse bed were leg bones of domestic animals, containing (as is so often the case) beautiful crystals of vivianite (*i.e.*, phosphate of iron). This, however, proves nothing as to the age of the deposits; for such crystals may be very rapidly formed under conditions proper for the joint decomposition of bone and iron. Indeed, throughout we are struck with the modernness of the finds, allowance being made for the certain fact that stone implements were in use in primitive parts of Scotland (as they were in parts of Ireland) long after they had ceased to be used in South Britain.

Of South British crannogs we hear chiefly in East Anglia. Cheshire does not seem to have been explored, nor the lake district. Saham, Old Buckenham, Hargham (explored by Mr.

Rose, of Swaffham), Barton Mere (by the Rev. Harry Jones), Wretham Mere, out of which Sir C. Bunbury, in 1856, pumped the water to get the black mud. Faircross Pond, on Cold Ash Common, Berks, has also given oak piles and beams, and so has Llangorse Pool, near Welsh Hay, Brecon; and Colonel Lane Fox, in 1866, discovered a great many pile-structures at London Wall. In several of these, pieces of red deer horn, clearly sawn off, were found. Dr. Munro's summary is that these lake islands were used by the Roman provincials against the Angles, and Picts, and Scots, as the Victoria and other Yorkshire caves were by the refugees from the great northern towns. Most of the Scotch examples occur within the limits of the old kingdom of Strath Clyde. The joiner's work is admirable; "modern engineers could not improve on it." Granting this to have been their date, they bear witness to a very rapid change of climate; large oaks growing then where no such trees can now be reared. But this is also attested by the old tithe records, showing that wheat and barley were raised in places like Lesmahago and Glenluce, where none is now to be found.

We close with an extract attesting the enthusiasm roused by the work in a class which in England and Ireland has seldom been encouraged to help in archæological discoveries. The village schoolmaster (Mr. McNaught was one) ought to be the archæologist's chief ally.

Mr. McNaught writes in 1881 respecting the Buiston crannog:

"Talking with one of the farmers in my own house, the conversation turned on furniture, when bog oak was mentioned. He remarked that there was as much lying in Buiston stackyard as would stock the parish. At once I remembered what I had formerly seen, and though the recollection was hazy, on afterthought I felt almost sure that I had noticed mortised holes, and that the beams were identical with those I had seen at Lochlee. Next day, as soon as I had closed the school, I went up to the farm. Mr. Hay was inclined to pooh-pooh the matter, and said that the place was 'just a timmer house ane o' the auld earls had put up to shoot deuks.' Going out to the stackyard I found that the ricks had been built on the old timber, which made excellent 'bottoms.' I looked about for an odd bit, and did eventually get a splinter, but not sufficient for identification. After getting rid of the old man, his youngest son and I set to work at the bottom of one of the ricks, and pulled one of the beams so far out as enabled men to saw off the mortised joint. This I sent to the *Standard* Office, where you saw it on the Saturday morning following. I then went down to the site of the crannog, but it had become so dark that I had to feel my way. I eventually kicked against something that seemed to be an upright sticking through the soil. I went up early next morning, and when I had seen the three uprights

afterwards pointed out to you, and the mortised beams stuck in the side of the drain, I no longer had any doubts. I therefore at once wrote to Mr. Cochran-Patrick, and penned a cautious intimation for the *Standard*, which the editor accepted on trust from me. You know the rest."

Rhys's Celtic Britain.

Early Britain. Celtic Britain. By J. Rhys, M.A., Professor of Celtic in the University of Oxford, Fellow of Jesus College, and late Fellow of Merton College. Two Maps, and Woodcuts of Coins. Society for Promoting Christian Knowledge.

Mr. Rhys's name is warrant enough that his work is sure to be thoroughly done, and that the etymological and ethnological parts are of exceptional merit. In his preface he apologises for the possible imperfection of this his first historical treatise, humorously adding that "no more severe judgment could be passed on his essay than that it should be found to be as bad as the etymologies made by historians are wont to be." Of his careful minuteness an estimate may be formed from the way in which he finds the men of *Fortrenn* in the *Verturiones*, named by Ammianus Marcellinus. He adheres to the modern notion that Iberians were the earliest inhabitants of this island, and that the Celts came over in two grand divisions—the Gael (*Goidel* is the earliest form of the word), and long after (how long it is no use trying to estimate) the Cymri. As to the old theory of the Phœnician tin-trade, Mr. Rhys says there is not a scrap of evidence that the Phœnicians ever were in Britain at any time, the passage from Festus Avienus, "a somewhat confused poet of the fourth century," about Himilco's visit, being exceedingly unsatisfactory. His remarks on the course of the tin-trade are confirmed by the discovery, to which he does not allude, of a lump of tin in Falmouth harbour, of the exact shape described by Posidonius as carried across Gaul to Marseilles. On the very curious remnants of Celtic mythology embedded in the Irish and Welsh legends, Mr. Rhys is very suggestive. He also enters at length into the traces of the Gael in Wales, whether they were survivals of the Cymric invasion or settlers who streamed back from Ireland. About the Picts of Galloway and the Welsh of Strathclyde, and how the latter were cut off from their kinsmen of Cumberland, when in 946 the Scottish king Malcolm received the former as a fief from Eadmund, he gives careful details. He thinks the Welsh language lingered from the Mersey to the Clyde till the fourteenth century. The early history of the Pictish kingdom is proverbially obscure; and

we have not followed Mr. Rhys through his careful details. Of the strange law whereby the Pictish sovereignty passed to the sons of a sister, he remarks that, in spite of the curious legend invented for it by the Irish and quoted in Bede, it proves a very low state of society—a survival in fact of the polyandry at which Cæsar hints. The word Scot, which has been so much discussed, he thinks means "painted or more probably scarred, disfigured man, a reminiscence of old tattooing times. Pope Adrian's legates, in 787, speak of God as having made man beautiful, but the pagans of that land by a diabolical impulse added to him most foul scars." He limits the Scotti to Ireland, and thinks they were to a great extent a non-Celtic people, often at war with the men of Ulster, which is the real reason why they were so ready to leave their country. His discussion of the meaning of Firbolg is very curious; he does not accept the Irish legendary rendering—the men of the bags or sacks. He thinks it an Ivernian, *i.e.* Pictish word, comparing the Scotch Strath Bolgie and Rhoss y Bol and similar names in Wales. His remarks on the Pictish language in reference to the story of St. Columba preaching among them should be read by all who care to enter into the question of how far they and the Scots were a different people. Altogether his book is a thorough contrast to that of Mr. Cutts, and shows that the Society makes provision for all kinds of readers. To a great many Mr. Rhys's way of dealing with the subject will be thoroughly repulsive. He says little of the old legends, in fact advances nothing that will not stand the test of hard criticism. And we must not forget that there is an increasing number of students who take a lively interest in the Celtic languages and in the ethnology of our islands. To them Mr. Rhys's book is invaluable. It ought to set at rest a good many popular errors, and is an excellent introduction to Skene and a whole library of similar works. We close with a few sentences on the vexed question of Druids, whom Sir G. Cornewall Lewis taught us to disbelieve in. Noting that the Dee, and Ribble, and Boyne were deified by the Celts, he speaks of their worship as "an elastic system of polytheism, or perhaps, more strictly speaking, not a system at all; and possibly the priesthood it implied did not form a class distinctly marked off from other men; but we have no data, and must pass on to the non-Celtic natives, who had another religion, namely, Druidism, which may be surmised to have had its origin among that race. Druidism possessed certain characteristics which enabled it to make terms with the Celtic conqueror, both in Gaul and in the British Islands; in the latter this applies probably to the Goidelic Celts alone, for there is no evidence that Druidism was ever the religion of any Brythonic people. Thus the men of Britain might perhaps be classified, so far as regards religion, into three groups: the Brythonic Celts, who were polytheists of the Aryan type; the

non-Celtic natives under the sway of Druidism; and the Goidelic Celts, devotees of a religion which combined Aryan polytheism with Druidism."

We are glad to quote this, for it is a characteristic specimen of Mr. Rhys's style.

Cassell's Old and New Edinburgh.

Cassell's Old and New Edinburgh; Its History, Its People, and Its Places. By James Grant, Author of "Memorials of the Castle of Edinburgh," &c. Numerous Engravings. Cassell and Co., London, Paris, and New York.

We suppose by-and-by old Edinburgh will pass away, as old Rouen has gone and as old London is, before our eyes, losing almost the very last examples of its early domestic architecture. The process has been slower in Edinburgh than elsewhere; there was a greater mass of old buildings to work on. But still those who can compare it now with what it was thirty years ago know how many picturesque bits have wholly disappeared. We therefore feel that Messrs. Cassell are doing a very good work by reproducing, in excellent woodcuts, the features of this most interesting North British capital. Everything is brought before us—the seven-storied houses of the Canongate, that seem as though they were emulous of reaching the height of the castle rock, the dilapidated bits round the Cowgate, the grand châteaux like Moray House, reminding us of the mansions in the noble faubourg in Paris, the churches, the public monuments—all are to be found in this complete picture of Edinburgh as it was and as it is. A plan of the new town, such a startling contrast to the old, reminds us that its transatlantic regularity is due to James Craig, nephew of the poet Thomson, who began it but did not live to see his design carried out. The well-known influence of France, not only on the politics but also on the architecture of early Scotland, is shown in such structures as the Canongate Tolbooth; and in the difference, plain to an architectural student, between the ecclesiastical ruins of Scotland and those of similar English buildings. Mr. Grant's plan of going from street to street, telling as he goes along the history of each house that has a history, is the best that could have been adopted. How many such houses there are is not astonishing to those who remember their Scott. The Canongate is full of ghastly memories, like that "anes burned, twice burned; the third time I'll scare ye all." For these Mr. Grant had not only Scott but Chambers; and so, whether tracing the history of the so-called "Morocco Land," or giving the quaint story of John Paterson, whose house

is known as "Golfer's Land," or telling how in 1531 John Scott, "the fasting man," having fasted to the king's satisfaction, was sent to Rome and thence to Venice, where he got fifty gold ducats to take him to Jerusalem, or giving (under the head of the Scottish Academy) an account of George Watson, P.R.S.A., he is always on firm ground. As a whole Holyrood externally is disappointing; those who go expecting much must not forget the destructive fire of 1650 caused by Cromwell's troops. But it is full of quaint bits, the delight of artists, and is in marked contrast to most of the modern public buildings of the city, which are strictly classical. One of these, the Royal Institution, gives Mr. Grant the opportunity of telling the curious tale of how "the equivalent money," the bribe to Scotland at the time of the Union, was spent. More curious still is the way in which the Lothian Road was made in one day, in consequence of a bet by Sir G. Clerk, of Penicuick. But more interesting than anything about stone or wood or earth are the notices, of which these volumes are full, of such Scottish worthies as Sir James Simpson, Aytoun, Heriot, Dr. John Bell, and the dear old ladies whom we read of in Dean Ramsay and other books. One of the strangest stories in the book is "The Revolt of the Macraes," a Highland regiment that actually stood a siege and held the fencibles at bay for a long time.

On the charters of the old trades—hammermen, cordwainers, &c.,—we have some curious notes. The queer little taverns, like Lucky Fykie's in the Potter Row, frequented by men of importance in society, prove the simplicity of the habits of eighty years ago. In this Potter Row was born Jeffrey; and close by was the square in which used to take place the bickers, or fights with stones, of which Sir Walter Scott gives such a lively picture (one remembers the story of "Green Breeks"). With an extract about Sir Walter's school life we close our notice:

"In 1779," he says in his *Autobiography*, "I was sent to the second class of the grammar school, or High School, then taught by Mr. Luke Fraser, a good Latin scholar and a very worthy man. Though I had received with my brothers, in private, lessons of Latin from Mr. James French, now a minister of the Kirk of Scotland, I was nevertheless behind the class in which I was placed both in years and progress. This was a real disadvantage, and one to which a boy of lively temper ought to be as little exposed as one who might be less expected to make up the lee-way, as it is called. The situation has the unfortunate effect of reconciling a boy of the former character (which since this is a posthumous work I may claim as my own) to holding a subordinate station among his class-fellows, to which he would otherwise affix disgrace. There is also from the constitution of the High School a certain danger not sufficiently attended to. The boys take precedence in their places, as they are called, according to their

merit, and it requires a long while, in general, before even a clever boy (if he falls behind the class, or is put into one for which he is not quite ready) can force his way to the situation which his abilities really entitle him to hold. . . . It was probably owing to this circumstance that, although at a more advanced period of life I have enjoyed considerable facility in acquiring languages, I did not make any great figure at the High School, or, at least, any exertions which I made were desultory, and little to be depended upon."

From Benguela to Yacca.

From Benguela to the Territory of Yacca, a Description of Central and West Africa. Comprising Narratives, Adventures and Important Surveys of the Sources of the Cunene, Cubango, Luando, Cuanza, and Cuango, &c., &c. By H. Capello and R. Ivens, Officers of the Royal Portuguese Navy Expedition, organised in the Years 1877-80. Translated by Alfred Elwes, Ph.D. Maps and numerous Illustrations. In Two Vols. Sampson Low and Co.

Senhors Capello and Ivens are not precisely of the stuff of which Livingstones and Camerons are made, nor did the conditions under which they made their exploration admit of any very brilliant discovery. They were told to move along certain river hollows, and they did so, though it was a much more difficult and far less healthy journey than had they kept along the heights. They went under high patronage, and the dedication "to the noble and distinguished lady who embroidered them the Portuguese banner—that beautiful symbol formed of the hues of heaven and the memory of Jesus," adds to their book that touch of mystery which is so dear to Continentals. They quote the letter in which she gave this banner to the President of the Portuguese Geographical Society, begging him not to reveal her name.

Belgium, it was reported, when Cameron made his successful journey, was to be the centre of the great international movement for civilising Africa. France and Germany were both said to be going to do something. Portugal, therefore, thought she would join in the work; Major Serpa Pinto and the two officers named at the head of this notice came forward as volunteers. They did not get on well together, and Major Pinto anticipated our authors in publishing his two volumes. In "a few words of explanation," they strive to refute the charges made in the *Pall Mall Gazette*—

which amount to an accusation of abandoning their comrade in a hostile and dangerous country. This they deny; the country according to them was not hostile, and the Major "showed the timidity natural to one unused to life in the forest." He simply had to go along a beaten track, and ought to have taken it as matter of course; nor did he complain at the time. Our authors were pained and astonished when they saw in his book the record of his feelings. The fact is they all got ill, and therefore lost temper. When Pinto got to the Bi-hé he was suffering from fever and rheumatism, and the other two had had several attacks. We do not know how they manage things in Portugal, but in France or Germany several duels would inevitably follow such an unpleasant recrimination. Our concern [of course is only with the work, which is all the more interesting because it is in several ways unlike those English books about Africa of which we have read so many. Their accounts of life in Central Africa are fuller of minute personal detail than those of most English travellers. They put down with cynical frankness all their difficulties with carriers, and all the extortion to which they had to submit from the *sovas* or petty kings. From the former (always the *crux* of African travellers, unless they have Stanley's determination and make their party feel that it is dangerous to trifle with them) they suffered in an unusual degree. For instance, they were foiled in an effort to reach the headwater of the Cuanza by the desertion of one of their captains, who suddenly decamped, taking with him his wife and a gun, and a hundred dollars advances, and a piece of handkerchief. At this point too they had to throw their superfluous luggage—dressing cases, carpenter's tools, cases of tinned vegetables, &c.—into the river. Moreover they were subject to all kinds of depredations—one fellow stealing 30 lbs. of salted meat, and reselling it to them for a couple of pieces of cloth. One great obstacle to their getting supplies of good trusty carriers was that which gives their book its chief value—the zeal with which they made scientific observations. Among these was a very successful observation of the transit of Mercury; but the people argued: "What do they mean by going about with those instruments, bewitching the roads and rivers, mountains and valleys? They only think of *ocu-soneca* (writing), and measuring and spying about, and don't care for ivory or wax. They must be the white king's sorcerers come to destroy the country." Besides their scientific tables and very elaborate maps, their volumes are full of exceptionally well executed woodcuts, on satin paper, in the style to which the illustrated American magazines have accustomed us. They also give abundant notes on natural history and such like. For instance, one of their men suffered from that mysterious disease hypnosia (sleeping dropsy), of which they give a description; they also give a minute account of the scurvy which followed one of the

attacks of fever, but did not show its full nature till they got back to the coast and to their ordinary fare and to alcoholic drinks. We usually think that a low state of body is favourable to the healing of wounds. This is certainly not so among the negroes, who suffer for months if they get a simple scratch. There are plenty of hair-breadth escapes—from storms, from wild bees, from angry natives, who fired the bush all round and then attacked the party; but our authors met everything with a light heart, and describe quite jocosely the discomforts and the extortion to which they were subject. Some of the chiefs have the head-dresses of upright feathers which middle-aged folks remember on the figures of negroes that used to mark tobacconists' shops. Sometimes the road led through very thick jungle, where the way had to be cut with a hatchet. So impassable was it now and then, that we cannot help thinking the guides must have played tricks on our Portuguese; but not seldom the scenery, as shown in the woodcuts, is beautiful in the extreme, and in one or two places the granitic and basaltic rocks are truly magnificent.

Of such a book as this the conclusion usually is, for those who care to speculate on the future of Africa, the most interesting part of the work. But unfortunately, our authors cannot be regarded as safe guides in reference to the moral and spiritual condition and prospects of the Negro race. What they say about the Arabs is a proof that their judgment is warped by preconceived opinions. With a vehemence that savours of the Middle Ages they speak of the Arab race as the true pest of Africa, against whose baneful influence we in Europe should unite in a permanent crusade. And in their estimate of the Negro's rank in the human family, of the slavery question, of the duties of a missionary, &c., they are equally at fault, putting light-headed assertion in the place of argument.

The volumes will, however, well repay perusal; and they are amusing, for the authors never conceal anything that tells against themselves, as, for instance, how they once took more mead than was good for them, and how (on another occasion) they slept through some of the grand rocky scenery of the Pungo N'Dongo rocks.

Hindu Mythology: Vedic and Puranic.

Hindu Mythology: Vedic and Puranic. By W. J. Wilkins, of the London Missionary Society, Calcutta. Illustrated. Thacker and Co., Calcutta, Bombay, and London.

The difficulty of writing a generally readable book on Hindu mythology is patent to every one. Mr. Wilkins manages re-

markably well. Without admitting anything that could offend, he has put together a very readable volume throwing a great deal of light on the subject. We know how important it is that all who go to India in any capacity should know something about the religion of the country in which they are to sojourn. Mr. Wilkins tells us how he felt the need of such a work as this when he first went out; and the need for his book, he thinks, is not superseded by the classical dictionaries published within the last few years at Madras and in London. He has above all things striven to be impartial, "to keep my mind free from prejudice and theological bias, and to let the sacred books speak for themselves." With this view he refrains from all comment save where it is needed for explanation. The illustrations are made without any attempt at idealising, and are "faithful representations of the drawings of Hindu artists." This is a very valuable feature in the book. It enables us to study the strange faith of our Aryan cousins with eyes guided by those who are sure to be the surest guides as to the externals of their creed. Figures like Vishnu recumbent with the cobra wound round him, and the two demons, who sprang from his ears as he so lay asleep, hanging over him, are very suggestive in their symbolism. Some of the pictures are strangely mediæval in character; others seem so unlike anything European as to make us doubt the Aryan character of those whose gods they figure. We have yet to learn whether the persistent symbolism which gives many heads and arms to the gods and goddesses (even Brahma appearing as a red man with four heads) has any parallel in Greece more complete than that furnished by Geryon and Briareus and Cerberus. The old Greek myths underwent such a gradual beautifying that the original forms are mostly lost. We wish Mr. Wilkins had said more about the relative dates of Hindu myths. What he does say on this subject we subjoin.

"Vaska (probably the oldest commentator on the Vedas) gives the following classification of the Vedic gods:

"'There are three deities, according to the expounders of the Vedas: Agni, whose place is on the earth; Vàyu or Indra, whose place is in the air; and Surya, whose place is in the sky. These deities receive severally many appellations, in consequence of their greatness or of the diversity of their functions.' In the Rig-Veda itself their number is increased to thirty-three: 'Agni, the wise god, lends an ear to his worshippers. God with the ruddy steeds, who lovest praise, bring hither those three-and-thirty.' This is the number commonly mentioned, though it is by no means easy to decide which are the thirty-three intended, as the lists of the gods vary considerably; whilst in another verse it is said, that 'three hundred, three thousand, thirty-and-nine gods have worshipped Agni.' These deities are spoken of

as immortal, but are not said to be self-existent beings; in fact, their parentage in most cases is given, though the various accounts of their origin, as found in different parts of the Vedas, do not agree with each other. Agni and Savitri are said to have conferred immortality upon the gods; whilst it is taught that Indra obtained this boon by sacrifice. An interesting account is given in the 'Satapatha Brahmana' of the means by which the gods obtained immortality, and superiority over the Asuras or Demons. All the gods were alike mortal, all were alike sons of Prajápati, the Creator. Wishing to be immortal, they offered sacrifices liberally, and practised the severest penance; but not until Prajápati had taught them to offer a particular sacrifice could they become immortal. They followed his advice, and gained the desired boon. Wishing to become greater than the Asuras, they became truthful. Previously they and the Asuras spoke truthfully or falsely as they thought fit; but gradually they ceased from lying, whilst the Asuras became increasingly false: the result was, that the gods after protracted struggles gained the victory. Of the gods, originally, all were alike in power, all alike good; but three of them desired to be superior to the rest, viz., Agni, Indra, and Surya. They continued to offer sacrifices for this purpose until it was accomplished. Originally there was not in Agni the same flame as there is now. He desired, 'May this flame be in me,' and offered a sacrifice for the attainment of this blessing, and obtained it. By the same means Indra increased his energy and Surya his brightness."

A Text-Book of Indian History.

A Text-Book of Indian History, with Geographical Notes, Genealogical Tables, Examination Questions, and Chronological, Biographical, Geographical, and General Indexes, for the use of Schools, Colleges, and Private Students. By the Rev. G. U. Pope, D.D., Principal of Bishop Cotton's Grammar School and College, Bangalore, Fellow of the Madras University. Third Edition, with Sixteen Maps. W. H. Allen and Co. London.

This is an Indian history, or rather introduction to the study of Indian history, which may be heartily recommended to all who have a special interest in the subject. The number of these is continually increasing. While we write, public attention is directed with earnestness almost amounting to intensity towards the Indian Empire; and it would be hard to say how many are every morning painfully reminded of their ignorance of the main principles of Anglo-Indian politics and the relation of India to

the British Empire. This volume would be very useful to the ordinary reader; but specially to those who are looking towards the East as their future home, whether going there on the public service or sent by the Christian Church as missionaries. It is a very methodical book; its analysis is perfect; and not a word is wasted. Indeed it might be regarded as too nearly approaching the character of a simple register of events to be very popular. But what might impair its popularity and attractiveness as light reading turns to its advantage as a guide to the sound knowledge of India. Here are a few sentences with which the work closes, and they will give a good idea of its style:

"The sad history of the 'Sepoy Mutiny,' in which England had finally to conquer its own rebellious army, and in the course of which the last of the Moguls, and the sole surviving and most unworthy representative of the Peshwâs was swept away, and which ended in the assumption by the British Crown of the direct government of India, which until then had been under the administration of the ever memorable British East India Company, closes the eventful history. The romance of Indian history is over. No such wonderful histories as those of Sirajî, Ranjît Sing, and Haidar can repeat themselves in this land, now resting itself after the struggles of a thousand years. May future historians record that in 1859 her millennium of peace and prosperity began!

"The student's attention may be drawn, with propriety, to one or two inferences.

"(1.) It will be discerned, that while in many cases the English have appeared as the liberators of oppressed races, in none have they overthrown a dominion that had existed before their own advent in the East, and which could be called a legitimate and ancient Hindû dominion. The only really ancient states of India which were in existence in the beginning of the eighteenth century, those of Râjpûtâna and Mysôr, are in being still, and owe their continuance to British protection. This is a fact which the student should minutely examine and verify for himself.

"(2.) The rise and progress of British rule in the East has been what may be termed *spontaneous*.

"Every step has been taken with reluctance, and under the pressure of that imperious necessity which Clive was the first to feel: the last battle was but the necessary corollary of the first.

"(3.) It can hardly be necessary to do more than to direct the attention of the student to the circumstance, that many of England's greatest statesmen and bravest warriors have been concerned in the establishment, guidance, and defence of this Anglo-Indian Empire.

"May it not safely be affirmed that the annals of the world afford no examples of constancy, prudence, and fortitude more

illustrious than those which shine forth in the pages of British Indian history? Hence the value and importance of this study.

"(4.) And lastly, if the provinces of India at any period during the last ten centuries have enjoyed peace, or had any assured hope of development and progress, it has been only as, one after another, they have come under the dominion or protection of Great Britain. Is it not evident that India now beholds the dawn of a brighter day than she has ever yet seen? The analogy of history, and a consideration of the laws which seem to govern human affairs, forbid the expectation that the forms of Indian national life which have passed away should ever reappear. There is no second life for decayed civilisations and nationalities. No Râma will arise to reign, as in ancient fable, over the fifty-six Hindû nations; and Mosalmân conquerors have had their day.

"From shadowy and misleading phantoms of Hindû independence we must turn away our eyes.

"The subjects of the 'Empress of India' are admitted to share the responsibilities and rewards of high office in the Anglo-Indian Empire; and, if no fusion of races is probable, or even possible, nevertheless, in the highest sense, India and rulers may be and must be One.

"India's life in future must be identified with that of the Paramount Power; and we trust that Great Britain has fully recognised, and is conscientiously striving to fulfil, in no selfish spirit, the duties which her guardianship of India involves.

"If these pages shall help the student to estimate aright his own duties, and to endeavour, in his measure, to help forward the great and necessary work of assimilating more and more these Eastern dominions of the Queen to the most favoured regions of the West in all that is helpful and excellent, they will not have been written in vain."

It may be added that all the subordinate matters that go to the completeness and practical value of such a book as this have been well cared for. Maps of peculiar beauty, chronological tables, examination questions, are found in the volume, which seems perfectly to answer its design, and will not be superseded at least in the present generation.

Episodes in the Life of an Indian Chaplain.

Episodes in the Life of an Indian Chaplain. Sampson Low and Co., Fleet Street.

This is a highly interesting and unaffected narrative of twenty years' work in India. The writer has suppressed his name; but there are many, both in England and in South India, who can

testify to the accuracy of the narrative, and to the value of the labours of the author; and there are some who, when they read its dedication, will recall the tombs in the Bangalore Cemetery, where that mother is at rest, and where one of her daughters, suddenly called away, awaits the summons which shall call those that sleep to meet their Lord.

The work of an Indian chaplain is very varied and important, and the very title is hallowed by the memories of Henry Martyn, of Thomason, and of Brown. It is not given to all to do the work they did for the Indian Church, but it may be safely said, that it would be a fatal mistake if anything should be permitted to interfere with an establishment that places in every important station in India a well-educated and refined clergyman of the English Church. Though not, strictly speaking, missionaries to the heathen, they often give very valuable aid to the cause of missions, and their labours are directed to the cultivation, among our fellow-countrymen in the East, of a type of Christianity which may commend our most holy religion to heathen and Mahomedans, "for a city that is set upon a hill cannot be hid." There was a time when it was said, with too much truth, that *our countrymen who went to India, left their religion, if they ever had any, at the Cape of Good Hope, and forgot to call for it on their return homewards.* That time has gone by, and most missionaries can testify that they have been aided and cheered by the Christian sympathy and virtues of pious laymen, and this change is owing, in part, to the labours of Indian chaplains. Indeed, in our Eastern possessions, there is room for every species of labourer, and whatever tends to diffuse a Christian influence is helping forward the regeneration of India. To the author of this volume, indeed, the Mysore kingdom owes the foundation of a large and flourishing orphanage, of a church which more than any other in South India recalls the idea of an English village church, of the Bishop Cotton Schools and College, and the restoration of the Tamil Mission Church. He has retired from the scene of his labours, but his works remain. The volume under notice is one which will have an especial interest for those who have lived in South India, for those who are about to enter upon any work there, and for all who desire to see a graphic picture of the life of a clergyman in that most interesting part of our empire. The author has wisely abstained from any ambitious attempt at fine writing or learned disquisitions. It is the plain record of a simple and uneventful life; but it is not without many of those touches of nature which "make all the world kin," and which will render its perusal deeply interesting. The writer is a man of careful observation, and of cultivated taste; and the accounts that he gives of all that was remarkable, with regard to natural objects as well as in the habits and customs of the races amongst whom he dwelt,

are highly valuable. There is thus scattered through the book a multitude of interesting facts which may be more valuable to those who are interested in Indian affairs than the most learned treatises on the antiquities and theological systems of the East. As a specimen of the author's style, we transcribe a part of his account of that most lovely spot in the Madras Presidency called "Ooty," or Ootacamund:

"The climate of Ooty during the month of May resembles that of April in England; the sun's rays, however, are much more powerful, and after eight a.m. unpleasantly warm. The thermometer stands at about 60° in the shade throughout the day, and out-door exercise is at all times pleasant and beneficial.

"There are well-made roads, winding round the foot of the hills, and bridle-paths, which give an endless variety of views to the various places of interest all around.

"The 'sholas,' which are small patches of forest in the gorges between the hills, down which streams of water flow into a boulder-bed at the bottom, covered with ferns of every description, are very pleasing to the eye.

"In these 'sholas' are endless companies of huge black monkeys, with white beards.

"The sides of the precipices, or *kuds*, as they are termed, are clothed with a variety of forest trees, indigenous to the hills, most of them very old, and the mossy branches of many laden with ferns and orchids.

"The rhododendron flourishes in abundance, the arbutus, wild raspberry, blackberry, and bilberry shrubs also abound.

"Banks of soft green moss, wild strawberries, and violets spread over the slopes, with occasionally a lovely bank of maiden-hair fern.

"At the sides of the road may be seen in profusion the wild geranium, blue and white iris, white and pink wild roses, honey-suckle, and the golden yellow blossoms of the furze or gorse.

"In the public gardens at Ooty numerous kinds of flowers flourish and spread in a manner unknown at home: hedges of fuchsias and heliotropes covered with blossom.

"The oak, ivy, heath, box, dahlia, verbena, calceolaria, foxglove, and others, too numerous to mention here, abound; and, of late years, the cinchona-tree has been most successfully cultivated.

"Those who desire to enjoy the climate and scenery of the Neilgherries should visit them, it is said, before the month of June or after September. The rains set in early in the former month, and then thick white clouds of mist obscure the views and detract much from the pleasure of out-door exercise.

"To lovers of ornithology the hills present a perfect paradise of enjoyment.

"Passing over the 'sparrow' and the 'carrion crow' (for the

smaller crow of the plains, with ashy-grey neck and breast, has not as yet found his way up the Ghauts), we find the lovely 'myna' (a starling), with his jet-black plumage and golden wattles.

"Then comes the red-whiskered 'bul-bul,' with his black head and crest, crimson whiskers, light hair-brown plumage, cheerily sending forth his notes on a hideous tuft of tobacco plant.

"Then follow the 'grey tit,' the white-eyed flower-pecker. Then again, though so small—only four inches in length—we find the 'Neilgherry flower-pecker,' hunting as busily as possible for insects. The 'butcher-bird,' the 'black robin,' the 'skylark,' all come in order.

"Then, what is that running across your path; mice?

"No. It is the 'painted bush quail,' which you will not obtain in the plains.

"Then you see the 'Neilgherry blackbird,' very like its European brother, and the 'blue rock thrush,' supposed, from its solitary habits, to be the 'swallow' of the Holy Scriptures, 'that sitteth alone on the house top.'

"These are not all. There is the 'laughing thrush,' the 'blue-necked bee-eater,' the 'green barbet,' and the 'hoopoe,' with his large crest, long curved beak, and quaintly banded plumage.

"But we must pass on from birds to men.

"In our walks we often come across a lovely open space with grass so closely cropped and so fine as to form a perfect carpet of velvet-like moss. Here one stumbles upon a hut in the shape of a straw skep, or the tilt of a wagon, and near it stands a Toda or Tuda. He is described as a fine, tall, athletic-looking fellow, with an open, expressive, ingenuous countenance; a large full eye, a Roman nose, and fine teeth. He has no covering on his head, wearing his hair six or seven inches long, parted from the centre, and forming natural bushy circlets all round. His costume is simple enough, formed of a short garment round the waist, fastened by a girdle, with an upper mantle or blanket that covers the whole person except the head, legs, and right arm.

"Near him stands, looking with all her dark eyes, his wife, the pattern of a 'pretty Jewess.' She has a pleasing and feminine expression of countenance, and is distinguished by her fine form of person and her beautiful long black tresses, which flow in unrestrained luxuriance on her neck and shoulders. Her dress is similar to that of the man, but covers the whole person.

"The Todas, called 'Thodan,' individually do not congregate in villages, but live apart, there not being generally more than four or five habitations togther."

We must not forget to add, in conclusion, that the book is very beautifully and faithfully illustrated.

Works on Science.

Light: A Course of Experimental Optics. By Lewis Wright. With Illustrations. London: Macmillan and Co. 1882.
A School Course on Heat. By W. Larden, M.A. London: Sampson Low, Marston, Searle, and Rivington. 1882.
Synopsis of the Classification of the Animal Kingdom. By Henry Alleyne Nicholsson, M.D., D.Sc., &c. William Blackwood and Sons, Edinburgh and London. 1882.

We hope that no one will be deterred from a careful perusal of Mr. Wright's book by the unattractive character of the first chapter. A professedly practical work naturally commences with a description of the apparatus used in most of the succeeding experiments. Although Mr. Wright opens in so homely a manner, he soon gains our attention, and each chapter adds to the interest, till in the last we are left, wondering, amidst the highest mysteries which the mind of man can contemplate. The author has undoubtedly adopted the right method, and realised the true end of scientific study. The true student cannot learn too soon the fact that a science can be satisfactorily mastered only by the experimental method. Though in all physical sciences exact researches now require complicated and expensive apparatus, it is the aim of works like the one before us to enable the student of moderate means to exemplify for himself the basis facts of science. We well remember the days when chemistry was taught without a single experiment, and the flood of light which in after years a course of experiments threw upon the subject. There are still found those who, having acquired a certain amount of scientific knowledge from books alone, still decry the experimental method as unnecessary, except, of course, in the case of those prosecuting original researches. But we venture to affirm that no mere theoretical knowledge of any science, however imaginative the student, will enable him to realise the marvellous workings of nature. Nor will he be in a favourable position to discuss the true relationship of theories to fact. What has already been done with respect to chemistry, Mr. Wright is attempting to further in the case of his favourite branch of physics, and we hope his book may be successful in accomplishing this object. The bearings of fact on theory in relation to light are well brought out in it; and where verbal description fails in detailing the more beautiful experiments, we find exquisite coloured plates to aid our imagination.

But Mr. Wright does not stop short at mere physical facts and theories. To him the end of a science is not attained in

the acquisition and arrangement of its truths. He regards the physical universe as a revelation, a stepping-stone to higher truths and more exalted thoughts. If the universe has an author, it should reveal that author. The end of all knowledge is God, and the author of this volume has worked under the dominant stimulus of that fact. It is indeed the highest privilege of the scientific worker; if he lose himself in lower ends, his labours lack their crown. As surely as the divinity of the doctrine is revealed to him who does the will of the Father, so surely shall the reverent worker in the domain of nature find there the reflection of its Author.

What is light? A form of energy; one of those varied movements of matter and ether which our sense-organs interpret so differently. Light is the name of the sensation, movement, of special character, the physical exponent. We look in thought on the world outside, and find nothing but waves of matter and ether: no light, no colour, no heat, no sound, only endless movement! Hence, "This light we are studying is not itself a thing, but a revealer of things. It is itself, and by itself, absolutely *invisible*. It *makes* visible to us luminous objects or sources, rays from which actually reach our eyes; but if we look sideways at rays from the most dazzling light, we cannot see them. Space is black. If we appear in previous experiments to have 'seen' the course of the rays in our darkened room, this is only because of the little motes in the air; and Professor Tyndall has shown that, destroying these by heat, and keeping fresh ones out of a glass tube thus cleared, the space traversed by the full beam of an electric lamp is dark as night" (p. 47). The heavens, though flooded with sunlight, display no brilliance by night, save where masses of matter, otherwise invisible, like the moon and planets, reflect the rays, or where the light of distant suns feebly wings its way through the already vibrating ether. What untold wonders would this light reveal had we sense-organs keen enough to receive, and minds acute enough to interpret its finer manifestations. Century after century has the history of each star and illumined planet been thrown off into space. In one unbroken wave it traverses the universe. The secrets of the stars, written in ether waves, are unfolded day by day. Even our own dull earth gives forth a daily revelation to the universe; and were the stellar satellites inhabited with beings who could detect its light, some would be reading the battle of Waterloo, and some the Norman Conquest; others would witness the events of Gospel history, and farther and farther off the pyramids are being built, and the ark is made; whilst in unknown regions beyond the light of Eden still passes on to tell of unfallen man and primeval peace on earth! Wonderful mingling of pasts and presents!

"Let us fully grasp the grand conception; for there is no grander throughout the entire material universe! All around us—everywhere—space is traversed in all directions by myriads of waves. Not more surely does a nail take up from a hammer the force of a blow, than does each particle of something take up and pass on the motion of the preceding particle. Heat, light, colour, electricity, all alike are simple propagations of disturbance through that something which we call ether. Invisible themselves, these wonderful motions make all things visible to us, and reveal to us such things as are. Take away from the diapason of these invisible waves those of any given period, and if we lose the dazzling whiteness which results from them all in due proportion, we but increase the soft splendour of the phenomena, as the hues of the rainbow appear before our eyes. Let them clash against, oppose, and so destroy one another, and even their very interferences, though dark shadows may cross our vision, produce amidst these forms and colours of almost unearthly beauty. Motion in the ether accounts for all" (p. 353). Ether! "No eye has seen it; no instruments can weigh it; no vessel can contain it; nothing can measure it; and yet it must be there. 'There?'—yea, here also, and everywhere. Absolutely invisible, it is yet the sole key to all physical phenomena; and the most recent, most widely received, and altogether most probable theory about matter itself, is that its atoms are but vortices in its infinite bosom" (p. 353). The presence of ether is disclosed by light, which is therefore "a revealer of all nature, both visible and invisible."

"Another step further yet. The inquiry is irresistibly suggested, whether the comparison and the analogy may not go further, and afford us some revelation deeper still. That inquiry is strictly legitimate. If our universe be in truth an objective and conditional manifestation of any absolute source of all being it should be thus: the actual ought, in its limited measure, to reveal to us truly the essential and eternal" (354). What, then, do physical science experiment and speculation teach us?

"1. They tell us of an intangible, invisible ether, which cannot be touched, or tasted, or contained, or measured, or weighed, but yet *is* everywhere; which contains within itself the most essential properties of matter, fluid and solid; and yet which is not matter, though it can communicate its own motions to matter, and receive motions from it.

"2. They speak to us next, according to the latest and most widely received vortex theory of Sir William Thomson, something vaguely about this ether taking form. They suggest to us how vortices in it may appear to us as the atoms of matter which we do see, feel, and handle, and which in this form *can* be limited,

and contained, and measured, and weighed; and in which the ether may become, as it were, incarnate and embodied.

"3. They tell us, in the third place, of a mysterious energy, which also takes Protean forms, but which in one form or other is doing all the physical work of the kosmos. Through it ether acts upon matter, and matter reacts upon ether or upon other matter.

"And this is all, and our light embodies them all and reveals them all. It *is* motion, a form of energy; it is motion *in* the ether; and it is invisible, inconceivable, unknown to us, *unless* matter, to make it visible, be in its path. There are these three and these only; each distinct and separate; and yet the three making up one, a mysterious unity which cannot be dissolved.

"So far the purely physical philosopher. Pondering attentively this wonderful triune splendour which he has put before us, it may seem strange that he at least should sneer at *any* other Trinity in Unity, seeing the kindred mystery in which he himself acknowledges that he dwells" (355-6). For from an old book the Christian has "gathered a like conception, and even framed it into a set theological formula."

"1. He tells us, first, that he believes in an eternal, immortal, invisible, inconceivable, infinite essence, the one Source and Father of all.

"2. He believes that this first essential Being has in a mysterious way become embodied in a second, in some inconceivable manner co-existent with and yet derived from Him, who is the brightness of His glory and the visible image of His person, and in whom and by whom all things were made.

"3. He affirms that these two work or act by and through a third, an equally mysterious energy; whose operations assume many forms; who does all things, alike in matter and in spirit; and who is as the wind, blowing where it listeth; and who finally brings all conscious agencies that yield to Him into harmonious relation and equilibrium with all that surrounds them.

"That is the creed of the Christian, however he came by it; more particularly, indeed, it is the special creed of the Trinitarian Christian, so much derided during the last twenty years. He also says and believes, like the other, that, although he cannot explain it, any more than the physical philosopher, these Three are One. And, strange to say, he too goes so far as to affirm that the motions of the third originally produced that light which we have found such a fascinating study; and that to him, also, that is an express symbol and revelation of the Three.

"This is but a suggestion and inquiry, and dogmatism is not pretended from either side. But *if* there should be reality and facts

behind the belief of both parties as we have listened to them, is there not here indeed an obvious, deep, fundamental, marvellous agreement?" (357).

We have quoted from this last remarkable chapter at some length, doing, however, some injustice to Mr. Wright by our omissions. The book and its conclusions are both worthy of thoughtful study. The Bible awaits the advance of science, not only for the verification of its facts, but also for the illustration of its mysteries. Explain them it never will; but its dim light may help faith to grasp what reason cannot approach. No doubt, as time goes on, this light will become brighter and brighter, till all sciences shall combine to show that the Book of Revelation and the Book of Nature are the work of One Divine Author.

The majority of school courses are not very palatable, and the reviewer who does more than taste them must have a keen relish for such diet. Mr. Larden has, however, made us read his book through, and we must pronounce it excellent. Not only can we recommend it as a school course on heat, but to all private students who wish to undertake a practical course of physics. It presupposes no knowledge of physical science, and yet does not fail to give the reader clear ideas of the modern theory of energy and the molecular constitution of matter. Many writers on this subject carefully describe the elaborate and costly apparatus by which exact researches have been made, but make no attempt to explain how the student may himself perform the experiments in a simpler manner. Such experiments form an essential part of the book before us. The reader is not assumed to possess an overflowing purse or unlimited ingenuity. On the contrary, Mr. Larden shows that many interesting facts may be illustrated by the simplest apparatus, gives all hints necessary for their performance, and explains why any given experiment is liable to fail. Though so eminently practical a work, the mathematical side of the subject is not forgotten. All calculations involved are carefully explained, and each chapter is followed by a series of examples which are unusually good. The paragraphs are, moreover, so arranged that by the omission of certain marked sections a more elementary course can be taken. The book itself is elegant, well printed, illustrated, and bound, and does credit to all concerned in its production. Mr. Larden has embodied in it all the most recent discoveries, and where the limits of the work forbid detail, he thoughtfully refers the reader to the best treatise on the subject. As an illustration of his style we will quote the paragraph on the air thermometer and absolute zero of temperature, premising that a gas when heated expands for every degree centigrade $\frac{1}{273}$ of its volume at zero. If, therefore, we take a graduated tube containing 273 volumes of air at zero, it is

evident that the air will expand or contract one volume for every degree centigrade its temperature is raised or lowered.

"Now it is clear that a tube so marked and containing a volume of air that fills 273 divisions at 0° C. is a thermometer; the mark '273' answers to 0° C., 283 answers to 10° C.; so that we could mark it on one side according to the centigrade scale, and on the other side according to another scale which differs from centigrade only in beginning from a zero which would be – 273° C.; and so any reading in this latter scale equals the centigrade scale with 273 added. Let us now consider further what the '0' on this scale, which answers to – 273° C., means.

"As we cool the gas degree by degree, its volume is diminished division by division, till at – 272° C. it would occupy one division, and at – 273° C. it would (always supposing, as we have done, that the gas continually follows this same law of contraction) occupy no volume at all (note *infra*). Now, what temperature must that be at which a gas can maintain no volume at all? Let us remember that the gas is all the time under the pressure of the atmosphere, and that it has to keep its volume against this pressure. We shall see later on that a gas is composed of a vast number of little particles flying about with great velocity, and that the gas exerts a pressure, not by these particles being pressed so as to touch each other and then pressing back by reaction, but by the particles bombarding the sides of the vessel in which the gas is, and exerting a pressure on it in the same way as a steady bombardment of bullets on a rifle target would exert a pressure on that target. We have already seen that 'heat is motion,' and so the vigour with which these particles fly about and bombard the sides of the vessel depends on the temperature. As the temperature falls they bombard the vessel more weakly, and the gas is therefore pressed into a smaller volume by the pressure of the atmosphere, which is steady, we suppose, all the time. When the gas is unable to maintain any volume at all (or rather when the particles are actually in contact), we must, according to this, suppose that the motion of the particles has altogether ceased, or that the temperature of the gas is really zero. Other considerations confirm this idea, and hence we come to the conclusion that . . . *At – 273° C. we have absolute cold, or – 273° C. is the absolute zero or '0' of temperature.* The foregoing is, of course, not a complete proof. If, then, we mark our thermometer with degrees of the same size as the centigrade degrees, but begin to count from 273° C. as '0,' so that freezing point is 273°, we shall never have to use minus numbers at all, since there can be no temperature colder than absolute cold. When a thermometer is marked in this way, it is usual to call the scale '*the absolute scale of temperature*,' and to designate readings in this scale by the letter 'T'" (101-2).

This remarkable conclusion, that there is an absolute zero of temperature, we believe was first announced by Sir William Thomson, and has already proved valuable to the physicist.

Dr. Nicholson's name is so well known in connection with his valuable works on zoology and palæontology that encomiums are unnecessary. His last production is intended to be a "guide to a line of study," "a skeleton, which the student must endow with life by his own work," and as such it will be a useful addition to the library of the zoologist. Numerous references to special treatises and papers will enable the student to accomplish the object Dr. Nicholson aims at. Classification in biology has passed through several important phases during the last century. As knowledge increased, some fixed centres round which the facts could be grouped were found to be indispensable. The earlier attempts to arrange living creatures into classes were based on the peculiarities and variations of some one special organ, or mere external feature, as if men should be divided into tribes according to the colour of their hair or eyes. This method, being purely artificial, was soon found to be inconvenient, as it often led to the wide separation of animals which were evidently closely allied. In time, however, a more accurate knowledge of anatomy led to a more natural classification. The animal was now viewed as a whole, the general arrangement and structure of all the organs were taken into consideration, and classes formed on the ground of the largest number of essential points of resemblance. Still another basis of classification is now popular, which, however, does not differ seriously from the last in its results. Taking evolution as proved, many zoologists hold that in the developmental changes undergone by every animal, we have an epitomised history of the development of the species—a sort of genealogical tree. They believe that each embryo will in turn assume the forms which, now only temporary, were permanent in its ancestors. Ontogenesis, or the development of the individual, is supposed to be a reflection of phylogenesis, the pedigree of the species. This embryological basis is, no doubt, of value, but it has in some instances been pressed too far. It does not yet authorise us to create imaginary classes of animals, of which palæontology says nothing, to fill up the missing links in the evolution chain. Dr. Nicholson is not a speculative zoologist. He still places the tunicates among the molluscs, though referring in a note to the opinion which would regard them as degraded vertebrates.

Though the author refers to his book as a skeleton, everything has been done by means of illustrations to make the skeleton lifelike. The woodcuts are numerous and well executed, and add to the interest and value of the work. With these before him, the most superficial reader cannot fail to be struck with the remarkable variety in the forms of animal life, though the

general types are so limited in number. Indeed it is probable that, even in the same species, nature rarely, if ever, produces two individuals precisely alike. Though the outward form and the internal structure of the animal kingdom are partially known, thy physiological working of these wonderful automata is in great measure undiscovered. What senses they possess, other than our own, we neither have nor can have any conception. Their eyes may see beauties in each other which our duller senses fail to perceive. As we once heard a little girl observe on seeing the lovely scales of the wing of the Burnet moth under the microscope, "How beautiful they must seem to each other!" Nature in this, as in all its branches, is infinitely complex, and we miss its true end if, with natural egotism, we regard it as made for man alone.

Ballard's Pyramid Problem.

The Solution of the Pyramid Problem; or, Pyramid Discoveries, with a New Theory as to their Ancient Use. Pp. 109. By Robert Ballard. New York: Wiley and Sons. 1882.

The author of this little book is a member of the English and American Institutes of Civil Engineers, and chief engineer of one of the Australian railways; and as such is fully competent to deal with the important problem which he has undertaken to solve. He displays throughout a familiarity with geometrical principles and details which could only be acquired through a long professional career; and the general reader may perhaps be disposed to lay the volume down as too technical and abstruse. If he will take the trouble to read it carefully, however, we think he will be amply repaid. He will be able not only to understand its general scope, but to master most of the details, and, if we are not mistaken, he will be satisfied that Mr. Ballard has established his point. His theory is that the Pyramids of Gizeh formed a central group, to which all the other pyramids and obelisks of Egypt were subordinate, and that they were erected chiefly as landmarks for the trigonometrical survey of the country. He believes that in ancient times there was an uninterrupted series of these monuments all the way from Babylon to Ethiopia. It would not be possible for us, in a few pages, and without the aid of diagrams, to unfold the author's system fully; but we will attempt to give a brief description of its main features. He thus explains the first impression which a sight of the pyramids of Gizeh produced upon his mind: "About twenty-three years ago, on my road to Australia, I was crossing from Alexandria to Cairo, and saw the pyramids of Gizeh. I watched them care-

fully as the train passed along, noticed their clear-cut lines against the sky, and their constantly changing relative position. I then felt a strong conviction that they were built for at least one useful purpose, and that purpose was the survey of the country. I said, 'Here be the Theodolites of the Egyptians'" (p. 111). The trigonometrical system of the ancient Egyptians included only right-angled triangles; and Mr. Ballard shows that the three pyramids of Gizeh, which he economically calls "Cheops," "Cephren," and "Mycerinus," are based on two of these triangles, whose proportions can be expressed in whole numbers. The first is the celebrated Pythagorean triangle whose base, perpendicular, and hypothenuse are in the relation of 3, 4, and 5. This, he thinks, Pythagoras did not discover, but learnt at the Egyptian College from whence he obtained his M.A. degree! The second is a triangle of wonderful properties, whose sides are in the proportion of 20, 21, and 29, though it is drawn on a much smaller scale than the other, and its hypothenuse is little more than half the length of that of the 3, 4, 5 triangle in the author's diagrams. Cheops is built on the acute angle of the first triangle, and Mycerinus rests on the greater angle formed by the hypothenuse and base. Cheops also rests on the acute angle of the 20, 21, 29 triangle, and Cephren on its greater angle. The bases of the two triangles are parallel, and the perpendiculars are formed by the same straight line. Cephren is the middle pyramid, and the centre of its base lies a little to the west of the hypothenuse connecting Cheops and Mycerinus. There are also twelve small pyramids in the group, but, with one exception, Mr. Ballard had not sufficient data to enable him to establish a connection between them and the larger ones. He has shown, however, that a small pyramid to the S.E. of Cheops rests on the acute angle, and Cheops itself on the greater angle of a 3, 4, 5 triangle, the perpendicular side of which is equal in length to the versed sine of the angle formed by the hypothenuse and base of the 20, 21, 29 triangle, and he is satisfied that the other eleven are parts of the same system.

He explains how geometric lines could be laid down with the greatest nicety, taking the Gizeh group as the centre of operations; but we can only give a few examples. Supposing the observer to be placed at a distance of, say, 20 miles, when Cephren exactly covered Cheops the observer's position would be S. 21, W. 20, and the hypothenuse of the 20, 21, 29 triangle would be prolonged, bearing 223° 36′ 10·15″. Other lines might be drawn. 1. When the apex of Mycerinus appeared exactly under that of Cheops, which would be an extension of the hypothenuse of the 3, 4, 5 triangle; 2. When the diagonal lines of Cephren and Mycerinus corresponded; 3. When the apex of Mycerinus was exactly under that of Cephren; 4. When

the base corners of Cheops and Cephren appeared to touch; 5. When the base corner of Mycerinus appeared to be exactly under the apex of Cephren, &c. The surveyor in all cases is supposed to be furnished with a string and stone, to be used as a plummet, and to make use of the rising, setting, or meridian sun. "The surveyors would be stationed at suitable distances apart with their strings and stones, ready to catch the sun simultaneously, and at the very moment he became transfixed upon the apex of the pyramid, and was, as it were, 'swallowed up' by it . . . Surely such lines as these would be as true and as perfect as we could lay out nowadays with all our modern instrumental appliances" (pp. 47, 48). But here the author has fallen into a slight mistake. One of his diagrams represents the sun as just disappearing behind the top of Cheops; but the base of this pyramid would only be 24′ of a circle having a radius of 20 miles, whereas the sun's diameter subtends an angle of 31½′ to 32½′ according to his distance from the earth, so that the entire pyramid would appear on the upper half of the rising or setting sun with more than 100 feet to spare at each base corner, and about six feet to spare above the apex. The pyramid, and not the sun, would be "swallowed up!" One of the most splendid sights we ever witnessed was the transit of a large mail steamer across the disc of the setting sun in a cloudless tropical sky—the stem and stern just touching its northern and southern limbs, whilst the entire vessel stood out upon its face in glorious relief. A very pretty object, also, is a windmill on a hill several miles away, with the rising or setting sun behind it. The author's theory explains the reason why Mycerinus was cased with red polished granite. If it had been covered with white limestone like the others, it would have been completely lost to view when it stood between the surveyor and Cephren. He urges in support of his views that, in a country where the boundaries of the land were liable to continual disturbance through the annual overflowing of the Nile, large and immoveable objects like the pyramids and obelisks were essential to the security of property. He adopts as his unit of measurement a cubit closely resembling the Royal Babylonian cubit, and containing 20·2208 British inches, or 1·685 British feet. Sixty of these cubits = one plethron or second; six seconds = one stadium; ten stadia = one minute or geographical mile; sixty miles = one degree; and 360 degrees = the Polar circumference of the earth.

Not less interesting are his measurements of the three pyramids themselves—the base side of Mycerinus being 210, that of Cephren 420, and that of Cheops 452 Royal Babylonian cubits. But Cephren, the middle pyramid, stands on higher ground than Cheops, and on lower ground than Mycerinus. He therefore takes the base of Cephren as his plan-level, and finds that its base line

produced cuts Cheops at the top of the tenth course of masonry, where its side is also exactly 420 Royal Babylonian cubits in length. If Mycerinus were built on the same level as Cephren its base would be 8 cubits more, or 218 cubits in all. This reduction of the three pyramids to a common level has an important bearing on the author's theory. He shows further that the heights of the three pyramids were determined by the triangles on which they stand, and in this respect his theory exhibits a marked superiority over that of Professor Piazzi Smyth, who almost deifies Cheops because its altitude is to the periphery of its base as π, or the proportion of the diameter of a circle to its circumference—regarding the other pyramids of Egypt as imitations more or less clumsy, and treating them with respect or contempt according to their approach to or deviation from the π relation. In view of the above fact it appears not unlikely that the pyramid builders, in determining the height and base of Cheops, were not aware that they were practically squaring the circle; or that, even if they knew it, it was not their dominant idea.

Though it was not part of the author's design to explain fully the uses of the interior passages and chambers of Cheops, he throws out some valuable suggestions which may hereafter bear fruit. He believes that the subterranean chamber was connected with the Nile, and that it was intended to supply the builders with water, which might have been "slided" up the passages in troughs; or that the chambers and passages were parts of a stupendous hydraulic system. We can discover some weak points in the latter hypothesis; but that the water was conveyed up the passages in troughs, or by means of the cochlea or water-screw, seems very likely. He further suggests that after the pyramid was completed, the king buried, and the entrance closed, the ancient priests had access to its passages and chambers by some subterranean entrance, and practised their secret rites there without fear of disturbance. He is convinced that vast caverns, hewn out by the priests, will yet be discovered beneath the pyramids, in the Gizeh hill, and that other chambers and passages will hereafter be found in the pyramids themselves. A good diamond drill and two or three hundred feet of rod, he says, are all that are required in prosecuting the search which he recommends. The so-called air passages in the King's and Queen's chambers of Cheops, with their thin screens of stone, he thinks, were auditory passages for the conveyance of sound to chambers not yet explored. Were the ancients acquainted with the telephone also?

He advises the adoption of the Egyptian system of measurement by right-angled triangles, whose proportions can be expressed in whole numbers—not to supersede but to supplement our modern

methods of triangulation, and thus describes some of the advantages which would be derived therefrom. "Primary triangulation would be useful to men of almost every trade and profession in which tools or instruments are used. . . . Such a set of tables [*i.e.* of primary triangles and their satellites] would be a boon to sailors, architects, surveyors, engineers, and all handicraftsmen; and, I make bold to say, would assist in the intricate investigations of the astronomer. . . The architect might arrange the shape of his chambers, passages, or galleries, so that all measures, not only at right angles on the walls, but from any corner of floor to ceiling should be even feet. The pitch of his roofs might be more varied, and the monotony of the buildings relieved with rafters and tie beams always in even measures. The one solitary 3, 4, 5 of Vitruvius would cease to be his standard for a staircase; and even in doors and sashes and panels of glass, would he be alive to the perfection of rectitude gained by evenly measured diagonals. By a slight modification of the compass card the navigator might steer his courses on the hypothenuses of great primary triangles" (pp. 82, 84). Similar advantages are pointed out in designing trussed roofs or bridges; in earthwork slopes, and especially in land surveying.

The last chapter—on the pentangle, or five-pointed star—is one of the most profound and at the same time one of the most interesting in the book; but we take exception to the first sentence which appears to attach mystic properties of a moral and spiritual kind to a mere geometrical figure. We do not see how "from time immemorial" it can have been "a blazing pointer to grand and noble truths, and a solemn emblem of important duties!" The author's design, however, is to set forth its geometric significance, and we are not sure whether the words quoted are intended to express his own views or merely those of the ancients. We are now reluctantly compelled to take leave of this little volume, the study of which has given us more than usual pleasure. Of course his theory is quite consistent with much that has been previously written on the pyramids, but if we are not mistaken it will prove fatal to some of the wild speculations which have been put forth with reference to Cheops. We heartily wish that Mr. Ballard may at some future time find leisure to follow up his investigations; and, if not, that some other explorer with equal qualifications may carry on the work which he has so worthily begun.

THE "CITIZEN" SERIES.

The State and the Church. By the Hon. Arthur Elliot, M.P. London: Macmillan and Co. 1882.

The State in Relation to Labour. By W. Stanley Jevons, LL.D., F.R.S. London: Macmillan and Co. 1882.

The State in Its Relation to Trade. By T. H. Farrer. London: Macmillan and Co. 1883.

THE first of these volumes deals with one of the most important and exciting topics of the day—the Church in its relation to the Civil Government; but it is treated with perfect fairness and impartiality. There is no expression of the author's views as to the desirability or otherwise of retaining the connection between Church and State, and the question of disestablishment is not discussed at all; but the nature of the connection and the whole machinery of the National Church are so clearly and fully described, that all parties will find in its pages valuable information which cannot fail to simplify the discussion, and aid in its final settlement. In the first chapter the rise and progress of the Establishment are traced from the earliest times; and the principle which underlies its past history and present relation to other religious bodies is unfolded in the opening paragraph, as follows:— "In early times the mere conception that various religions and churches could grow up side by side and flourish within the same State would have seemed an impossible one. Throughout Western Christendom, up to the date of the Reformation, there was but one religion and one Church, and for many years after the reformed faith had prevailed over a large portion of Europe, the form of religion decided upon and 'established' in each State became the State religion, all others being actually persecuted or subjected to civil disabilities of a greater or less degree. When the universality of the prevailing form of Christianity was for ever destroyed by the Reformation, it was found, doubtless to the surprise of many reformers, that the assertion of the right of private judgment against the claims of authority was as antagonistic to the pretensions of the newer hierarchies as it had shown itself to papal decrees or episcopal councils. The transition from the conception of one religion throughout Christendom to that of one religion for each State was a considerable one; but the later transition, which has been less noticed because more quietly accomplished, from a state of things where a 'national' religion was alone professed and tolerated by each nation, to a condition of society where all religions are treated by the State as exactly on the same footing... is as wide a transition as

the former, and the consequences which its complete accomplishment will bring about, it is for the future fully to reveal. . . . . In some countries this principle (of complete religious equality) has already triumphed; and it cannot be doubted that in all countries it is gaining ground." In the author's view, therefore, the outlook is towards the complete emancipation of all forms of Christianity from State patronage and control, though the time and mode of separation will be determined by the peculiarities of each case.

The principal characteristics of the connection between Church and State in England are thus summed up: 1. The Royal Supremacy; 2. The Subordination of the Church to Parliamentary Control; 3. The Presence of the Archbishops and Bishops in the House of Lords; 4. The National Endowment of the Church; 5. The Accessibility of the Church to all who may wish to avail themselves of its Ministrations (p. 16). The Royal Supremacy forms the subject of the second chapter, which is a very brief one. By virtue of this supremacy the Sovereign convenes, regulates, and dissolves all ecclesiastical convocations, which without her commission could not lawfully assemble for the transaction of business; she nominates the higher dignitaries of the Church; and a final appeal lies from all the ecclesiastical courts to the Queen in Council. The third chapter is on the clergy and laity. After discussing the conditions of lay membership, the author adopts, as the best for all practical purposes, the general definition that all are laymen of the Church of England who signify a general assent to its doctrines and practices by customarily using its ministrations (p. 24). It is clear, however, that a Church which acknowledges this standard abandons all moral tests of membership, and all right to exclude unworthy persons from its communion. Mr. Elliot estimates the number of churchgoers roughly, by the number of sittings provided, which in 1876 was about 6,000,000 in 16,000 churches. The number of the clergy of all grades in the same year was nearly 25,000, though, as the author points out, they have not increased during the last sixty or seventy years in anything like the same proportion as the population; for in 1811, with a population of 11,000,000 in England and Wales, there were 16,000 active clergy, whereas in 1871, when the population had increased to 22,000,000, the number of active clergy was only 19,000. As the clergy work much harder than they did in former times, however, the disproportion is perhaps not so great as it appears at first sight. The author quotes and endorses Dean Stanley's statement that the Divine right of Episcopacy has no sanction either in the New Testament or in the constitution of the Church during the first century, and observes that it was probably unheard of in the Reformed Church of England till the end of Elizabeth's reign; but that it was loudly asserted and finally triumphed under the Stuarts. In these days of prelatic assump-

tion and clerical intolerance, it is well that these points should be kept steadily in view by the British public. In this chapter we have also a detailed account of the different ranks and titles of the church dignitaries and clergy; of the position of the archbishops and bishops as spiritual peers; and of the constitution and functions of Convocation.

The next six chapters treat of Church Law and Church Courts; the Parochial System; the Prayer Book and Thirty-nine Articles; the Revenues of the Church; the Church Building Commission, and Ecclesiastical Commissioners; the Appointment of Dignitaries, and Patronage. Each of these opens out topics of interest on which we would gladly dwell; but we must refer our readers to the book itself. We only notice one subject in passing. The author points out that the National Church is not a corporation, though it includes many corporations within its bounds, and that it is incapable of holding property in its own right. All its property and revenues, from whatever source derived, belong to the nation, and are under the absolute control of Parliament. It is clear, therefore, that such terms as "robbery" and "spoliation" cannot be fairly applied to the advocates of disendowment. The only question that can ever arise is, "What is best for the nation?" On this question, when it does arise, there will probably be marked diversity of opinion. We make the remark, not as advocating disendowment, but in the interests of free discussion and fair play. The tenth chapter is on Established and Free Churches; and the two concluding chapters, on the Established Church of Scotland, are especially interesting. There is a freeness and freshness about them which were perhaps hardly attainable whilst the author was writing about the Anglican Church. We have no doubt that this volume will be welcomed by all parties as a valuable *vade mecum*.

The second book at the head of this notice—on "The State in Relation to Labour"—possesses a melancholy interest from the fact that its gifted author was drowned whilst bathing at Brighton, in August last. Though only in the prime of life, he had laid the foundations of enduring fame by his works on logic and political economy; and he will long be remembered as the inventor of an ingenious little "reasoning machine," by which he reduced induction almost to a mechanical process. The volume before us touches on vital questions which will engage the attention of philosophers and statesmen for many years to come. The problems to be solved are so intricate and so many, that the author seems conscious, after his task is completed, that his work is hardly satisfactory. At all events, he fears that it will be so regarded by many of his readers, for both in the preface and in a concluding chapter added for the purpose, he deems it necessary to account for apparent contradictions. In the preface he says, "The all-

important point is to explain, if possible, why, in general, we uphold the principle of *laissez faire*, and yet in large classes of cases invoke the interference of local or central authorities. This question involves the most delicate and complicated considerations, and the outcome of the inquiry is that we can lay down no hard and fast rules, but must treat every case in detail upon its merits. . . . . In order, however, to prevent the possible misapprehensions into which a hasty reader of some of the following pages might fall, I may here state that I am a thoroughgoing advocate of Free Trade" (Pref., pp. v., vi.). In the opening paragraph of the last chapter, also, he says, "On reviewing the arguments given in the little treatise now brought to a close, it may perhaps seem to the reader that the results obtained are hesitating and conflicting, if not positively contradictory" (p. 164). Notwithstanding these modest disclaimers, however, we think that the public will regard this volume as one of the best expositions of some of the most difficult, social, and industrial questions of the day. There is the stamp of the author's genius upon it, and whilst his treatment of some points is racy, we feel throughout that we are under the guidance of a profound thinker who has thoroughly studied his subject. The book fully maintains the interest and value of the Citizen Series, as it will also maintain, if it does not increase, the literary fame of the late Professor Jevons.

The third volume on our list appropriately follows that of the late Professor Jevons. The author says, in the preface, that when he was asked to write this treatise, he hoped to be able to consult with Mr. Jevons as to the line to be taken by each, where their kindred topics touch upon, and occasionally overlap each other, but had no opportunity of doing so before his untimely death. On one point his views are slightly divergent from those of Mr. Jevons. The latter thought that State interference with trade and labour should be mainly through the central government, whereas Mr. Farrer thinks that it should be principally through the local governments of the country. He accounts for the difference by the fact that Mr. Jevons was better acquainted with local government and wants than he, whereas he has had wider experience of the difficulties and weakness of central government; so that in each case "'tis distance lends enchantment to the view!" Both are agreed, however, that within limits which it is not always easy to define, State interference is absolutely necessary to the well-being of society.

We have so long been used to the idea of Free Trade that those whose attention has not been directed to the subject of which this volume treats, might suppose that the Government has for many years been gradually withdrawing from all interference with trade and commerce; but if any have indulged this thought, the perusal of it will completely disabuse their minds.

Free Trade means simply the abolition of customs duties on articles of import and export; but beyond this there is a system of State interference and control so vast and complicated that the smallest and most ordinary act of barter, either amongst ourselves or with other countries, is fenced in by a multitude of laws and guarded by the ever watchful eye of the national administration. The first and most obvious action of the Government is to fix standards of measurement on the one hand, and of value on the other; and the chapter on weights and measures, gold and silver money, &c., will prove one of the most interesting, because it brings out facts with which the general public have little acquaintance. The following condensed paragraph may serve as a sample of the author's method:—"In the simplest and rudest form of trading, one article would be exchanged against another, ... an apronful of corn against an armful of meat or a hewn tree or stone; but there would be nothing by which the quantities of any of these articles could be known, ... nor would there be any common measure of value to which each could be referred. . . . Contrast this with the sale by the butcher of so many pounds of beef at so many pence a pound; the purchase by the miller of so many bushels of wheat at so many shillings a bushel, &c. The facilities of dealing in the latter case as compared with the former are obvious; but these facilities would be impossible if we did not know, accurately and universally, what was meant by a pound, a foot, a bushel, a shilling, and a penny. And, in order that they may be accurately and universally known, they must be determined in such a way that all persons must accept them; and this can only be done by the authority of the State." "The ultimate English standard consists of a bronze bar on which a yard is marked, and of a platinum pound weight, kept in the standard department of the Board of Trade. These are called the imperial standards. From them four exact copies have been made, of which one is kept at the Mint, one at the Royal Society, one at the Greenwich Observatory, and one is immured in the walls of the Houses of Parliament. These are called the Parliamentary standards. From these two original measures all other legal weights and measures, whether they denote weight, length, area, or capacity, are derived by combination, multiplication, or division."

Gold, like every other article of commerce, obeys the law of supply and demand, and rises or falls in value; and no acts of Parliament can set aside this universal law; but the Mint value of gold is nevertheless fixed at £3 17s. 10½d. an ounce. The sovereign and an ounce of gold, therefore, bear an invariable relation to each other, and the Mint authorities are bound to give sovereigns at that rate for all the gold brought to them to be coined. In like manner the Bank of England is bound to pur-

chase all the gold brought to it at the rate of £3 17s. 9d. an ounce, payment being made in bank notes. The value of silver also fluctuates, and yet a fixed relationship between gold and silver coins has to be maintained. At the present time a shilling is only worth about tenpence, but this is a matter of little consequence, as more than forty shillings in silver is not a legal tender. For much interesting information on this and kindred topics, such as bank notes, bills of exchange, &c., we must refer our readers to the book itself.

The headings of its twenty chapters give a tolerably comprehensive view of the relations between the State and trade, but we can only give a few of them. The State enforces, explains, and adds to contracts; it interferes between debtor and creditor; it regulates partnerships, joint stock companies, shipping, insurance, &c.; and it has to do with harbours, navigation, lighthouses, railways, gas and water companies, and a host of other undertakings which are wholly or in part monopolies; it tests the qualities of articles, and brands them as a guarantee of genuineness; it registers trade marks, and prohibits adulteration. It places restrictions on unwholesome trades, and takes the oversight of buildings, the width of streets, drainage, and other sanitary matters. In short, its interferences are innumerable and constantly increasing. Mr. Farrer has brought fully to our view the fact that, in trade and commerce as in all other things, we are truly "a much governed people;" but the general effect is beneficial, and the utmost freedom of enterprise is combined with the protection of the community and the promotion of its welfare. We welcome this volume as a seasonable and valuable addition to our literature on political economy.

Graham's Rousseau.

Foreign Classics for English Readers. Edited by Mrs. Oliphant. "Rousseau." By Henry Grey Graham. Blackwood.

There are plenty of lives of Rousseau; indeed, in his Confessions, Dialogues, and Reveries, "the self-torturing Sophist" has left a very minute, though unfinished, autobiography. But it is not every one who has time to read St. Marc Girardin or Mr. Morley; and Mr. Graham has gone also to German authorities, and has, moreover, studied in the library of the Royal Society of Edinburgh the Hume and Rousseau correspondence which records the deadly quarrel between the Scotch historian and the French essayist. We are glad Mr. Graham's space did not allow him to give more details about this sad business. No biographer of Rousseau can omit to mention it, but few (we think) who go below the surface

will acquiesce in Mr. Graham's crushingly severe verdict that "Rousseau shows himself a man who never acted from duty if it clashed with his interests, ungrateful by nature, suspicious in temper, who would by churlish refusal wound the feelings of any who confer a favour rather than with courtesy receive an obligation which might lessen his freedom, . . . a man who is proud with the pride of a lackey, who has given up his place and is anxious to show his independence." Of course, every one of these charges can be sustained out of Rousseau's own writings; for, while sometimes absurdly egotistic, he is at other times full of every form of self-accusation; but to make them in connection with the Hume quarrel savours of the wish to support a fellow-countryman at any and all hazards. The impartial observer sees at once that Rousseau was out of his mind. His mental balance was never of the steadiest. Every now and then during his hot friendship with Hume, he would think (perhaps not without reason) that the historian "was eyeing him with a sardonic look." On one such occasion he fell on Hume's neck and embraced him, choking with tears and crying, "No, no; David Hume is no traitor"—an outburst that must have considerably astonished that cold-hearted philosopher. The quarrel broke out while Rousseau was at Wootton in Derbyshire—at a house placed at his disposal by a Mr. Davenport, but where "with his lackey spirit of independence," he insisted on paying £30 a year as board for himself and Thérèse. He was very poor; and Hume tried to get him a pension of £100 a year. But Rousseau wished it given privately, about which there were difficulties. Rousseau got sleepless. Wootton, at first as delightful as his native Jura, and charming his botanical tastes with its variety of wild flowers, became dreadfully dreary during a cold wet winter. He grew suspicious. An ironical letter published in Paris by Horace Walpole galled him; and he complained that Hume had introduced him to Walpole well knowing him to be the author of the letter. Hume, instead of treating his violent letter "written in the most beautiful hand, and full of the maddest charges," as a proof of cerebral disturbance in one of whom he had once said "he is so sensitive as to be like a man stript not only of his clothes but of his skin," at once wrote off to D'Holbach and D'Alembert desiring them to tell Neckar and Voltaire that "Rousseau is a villain." Meanwhile poor Rousseau showed his villany by getting more and more certain that a conspiracy was closing in round him; and, at last, he disappeared and made his way round by Spalding to Dover, writing on the road to the Lord Chancellor and also to General Conway begging that at his own expense he, "herbalist to the Duchess of Portland," might have a guard to conduct him safely out of the kingdom. Strangely enough, the moment he landed

at Calais all these symptoms disappeared for a time. To the close of his life, henceforth a very gloomy one, he was however subject to delusions. By-and-by, Thérèse, always coarse, became unkind and vicious. Rousseau's end, quite sudden, was not without strong suspicion of suicide. We have dwelt long on this sad episode because it is so much less known than the earlier incidents —the youthful adventures, the life at Andécy and Chambéry and les Charmettes, the music projects, the coming to Paris (he was so ignorant of the usages of society that, at his first dinner, when a helping was offered him, he modestly took out the smallest bit and handed the plate back), the rise to fame (comparable with that of Burns).

Any life of Rousseau must be deeply interesting to students of physiology as well as of literature; but we do not think Mr. Graham rises to the height of his subject in the way in which some of his fellow writers do. He has not the same sympathy with it that Miss Thackeray has with Madame De Sévigné for instance. Of Rousseau's influence in bringing about the French revolution, many will doubt whether it was salutary or the reverse; for having been the harbinger of that love of natural scenery which is such a characteristic of modern times, he has earned the gratitude of mankind. Like Wordsworth he could truly say, "my heart leaps up" at sight of wild or mountain. Even in his desponding old age the country always cheered him. He hated Paris.

Cumming's Fire Fountains.

Fire Fountains: the Kingdom of Hawaii, its Volcanoes, and the History of its Missions. By C. F. Gordon Cumming, Author of "At Home in Fiji," "A Lady's Cruise in a French Man-of-War," &c. Two Vols. Illustrations and Maps. Blackwood.

Miss Gordon Cumming is always a delightful writer, and in the volumes before us she not only luxuriates after her wont in descriptions of native manners and contrasts between the luxuriance of tropical vegetation and the gloomy Aden-like look of the volcanic rocks, red, brown, ashen grey, among which in the Sandwich group this vegetation manages to find a home, but she also gives a very interesting and tolerably complete account of the wonderful story of the conversion of these islands, resulting as it has done in making Honolulu the capital of one of the civilised kingdoms of the earth. The only drawback to enjoying her book is the feeling that we are reading about a dying race, and a race which in these days of threatened monotony the

world cannot well afford to lose. There is much good in the simple-hearted people whose chief amusement was surf-riding, and whose language and thoughts were full of poetry. What more poetical than that, when the great Kamehameha died his daughter took a name which meant his shade (his own name, by the way, means "the lonely one"), and one of his chiefs who had just lost a favourite wife called himself "twice blind," his king being one eye, his wife the other? The readiness with which they adopted Christianity and clung to it on the whole faithfully, despite a series of trials far harder to withstand than the persecutions of pagan Rome, speaks well for their character. The shame of their occasional backslidings is wholly at the door of the white man, the devil's missionaries, who strove in every way to counteract the work of the teachers of the Gospel. *Papalangi*, "those who have burst through the heavens," was the name given by the islanders to those who, coming in "the great canoe with wings," seemed to them supernatural beings. Alas, they soon had occasion to doubt the divinity of their new visitors. Captain Cook's extraordinary style of bartering was followed by a systematic attempt on the part of whalers and other ships, American and English, to make the islands an organised hell upon earth. After the missionaries had inspired these poor creatures with a sense of decency and some love of purity, one whaler was barefaced enough to threaten armed force because the bevy of damsels which used to swim out on the arrival of a ship was not forthcoming. To their endless shame "the authorities" not seldom threw their weight into the devil's scale. Consul Charlton stands conspicuous for opposing all attempts to check immorality, to regulate drink, &c. His conduct was at last so outrageous that he was dismissed by the Home government. Even on his way home he persuaded Lord George Paget, commanding H.M.S. *Carysfort*, to land and depose the king, the result being that no laws could be enforced and that all barriers to wrong-doing were set aside. Fortunately, Rear-Admiral Thomas arrived unexpectedly from Valparaiso (July, 1843) and undid as far as possible the mischief wrought by the captain of the *Carysfort*. But all this, as well as the shameful story of the young king being invited on board a ship and, at a state dinner, entrapped into breaking his temperance vow by having an unknown drink, cherry brandy, set before him, and the wild orgies which his falling away caused throughout the island, is known to readers of missionary reports. So, too, is the story of French interference, and the establishment by force of a Roman Catholic mission, as well as the enforcement of a treaty in favour of French wines and brandy. So, also, is the not very creditable account of the establishment of episcopacy—a clear case of entering into other men's labours, brought about by the zeal of

foreign minister Wyllie, a Scotch episcopalian, and as bigoted as the late Bishop of Brechin himself. The young king and his brother had been to England, and had attended service in Westminster Abbey; so that Mr. Wyllie's promptings fell on ears already prepared to listen. Queen Emma, too, granddaughter of John Young, boatswain of the American ship *Eleanor* (nobility following on the mother's side in these islands), favoured the new form of worship; but it is only the state religion. The mass of the people are true to the old teachers.

We heartily recommend the book to any one who wishes to know how this interesting group is faring now. It has a complete court, and all governmental arrangements on the most advanced European plan. The laws are wise and well carried out; in sacrificing the growing revenue from opium (there is a large Chinese population) the Government has set a pattern to us in India. Curiously like the attempts of Augustus to make marriage popular at Rome are the rules which secure a premium on children and exemption from taxes to large families. But, in spite of good laws, and the efforts of missionaries, and devoted American ladies, who have for forty years been at work at girls' schools, the race is rapidly dying out. In 1832 there were 130,000; in 1850 only 84,000, the deaths being in excess of the births. In 1872, 49,000, which in 1878 had sunk to 44,000, the remainder being Chinese 6,000, half-castes 3,400, &c. Here is a race ruined by imported vice, as the Maoris have been (according to the latest authorities) by imported engines of destruction—Hongi's muskets. "That a single Hawaiian has survived this inroad of foreign vices grafted on natural depravity is due to the preserving control of the Gospel." No one who reads Miss Cumming can ever venture to lift up his voice against missions; her testimony is overwhelming, and it is that of an outsider. We have said nothing about the volcanoes, her trips to which (some of the craters as big as those which astronomers measure in the moon) and her accounts of famous eruptions fill a large part of her work. Indeed, the mind is in a whirl amid all these fire rivers, fire cataracts, displays altogether so out of proportion to the small stage on which they take place. Neither have we space to do more than call attention to her account of extinct native manufactures—*e.g.*, the feather cloaks and helmets which were the insignia of high rank; but we hope readers will take up the book for themselves. It will well repay study, and suggests practical questions as to whether the isles are to become merely cattle ranches and sugar farms of San Francisco, or whether a better fate is in store for them.

The Chinese Opium Smoker.

The Chinese Opium Smoker. Twelve Illustrations. Facsimiles of Native Drawings. With a Translation of the Original Chinese Text, and Appendixes. London: S. W. Partridge and Co., 9, Paternoster Row.

The title sufficiently explains the nature of this little publication, which shows by characteristic language and equally characteristic illustrations what the Chinese think about opium. Both are exceedingly effective, not to say touching. We trust the plea of a heathen nation with a Christian one on behalf of the first principles of morality will not go long unheeded.

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