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THE RENDING OF THE VEIL.

THE incident of the rending of the Temple veil at the time of our Lord's death is especially mentioned by the three first Evangelists, and we may therefore infer that they regarded it as of sufficient significance to deserve mention. At the same time we can hardly suppose that this significance was due to the incident in itself apart from any further meaning intended to be conveyed by it. No doubt the coincidence of the death of Christ and the rending of the veil, if merely an accident, was a notable accident, but scarcely one that the Evangelists would have recorded because of its intrinsic importance. We can hardly fail to believe that they intended to imply that a symbolic significance attached to it, and that corresponding teaching was to be derived from it. Nor can we hesitate as to what that teaching was when we find the writer of the Epistle to the Hebrews saying, with manifest allusion to this same incident, "Having therefore boldness to enter into the holiest by the blood of Jesus, by a new and living way, which He hath consecrated for us, through the veil, that is to say, His flesh; and having a High Priest over the house of God: let us draw near with a true heart in full assurance of faith." It becomes perfectly clear that the three Evangelists and this writer alike saw in the rending of the veil an indication that the symbolic purpose of the veil before the Holy of Holies was fulfilled when Christ died, and that He, as the great High Priest, had brought to an end the functions of the hereditary high priests when "He entered in once into the holy place, having obtained eternal redemp-

tion for us." This teaching is so apparent that probably no one would decline to admit that to suggest this and nothing else was the particular purpose which the Evangelists had in view in recording the incident we are now considering.

We note therefore that, supposing the actual historic truth of the three Evangelist in this respect is unimpeachable, and that the death of Jesus Christ was really accompanied by physical phenomena that caused the veil of the Temple to be rent in twain from the top to the bottom, we must either regard it as a mere accident or must allow it to have had the special significance which they assign to it. And, we may add, that it is just here that the Scripture narrative generally differs from any ordinary narrative, inasmuch as it is not content with recording bare facts, but appeals to our faith to accept the interpretation passed upon them. Of course it is open to any one to question the historic veracity of the Evangelists, and to throw doubt upon the fact that the veil was rent in twain as they affirm it to have been, and that is a position extremely difficult, if not wholly impossible, to disprove; or again, accepting their historic veracity in this particular, it is possible to reject their implied inference, that the two incidents not only occurred simultaneously, but had also a correlative meaning, a position, perhaps, hardly less difficult to maintain. But putting aside both these contentions, it is hard to see what remains for us but to accept the position of the Gospels, and allow the designed connection between the death of Christ and the rending of the Temple veil. This is, of course, *the* Christian position, and it is that which the Gospel writers manifestly invite us to adopt.

But allowing to their narrative thus much of historic veracity and of intuitive symbolism, we may question whether the symbolic significance of this incident is exhausted here, and whether there is not more that we may learn from it. And with a view to deciding this, we will trace the history of the veil of the Temple as far as we are able. First, then, it is manifest that the Temple of Herod in the time of our Lord had a veil between the Holy of Holies and the Holy Place. In whatever particulars that Temple may have differed from

the Temple of Zerubbabel, and from that of Solomon, it probably resembled both in this particular. We have no detailed account of Zerubbabel's Temple, but it is reasonable to suppose that it was as far as possible a reproduction of the Temple as it was when destroyed by Nebuchadnezzar. But with regard to Solomon's Temple, we have very full details; though, strange to say, full as they are in the Books of Kings, there is not there any special mention of the veil. This omission, however, is supplied in the second Book of Chronicles iii. 14, where we read, "and he made the vail of blue, and purple, and crimson, and fine linen, and wrought cherubims thereon," from which it is plain that this veil was practically a reproduction of the original veil of the Tabernacle as it was prescribed (Exod. xxvi. 31) and as it was made (xxxvi. 35). The scarlet and fine linen in Chronicles are represented by different though equivalent words, but the others are the same. Josephus¹ observes of these materials that the fine linen represented the produce of the earth; the blue, the air; the purple, the sea; and the crimson, fire; and if so, this mystic veil might very well represent the natural elements as concealing the personal presence of God dwelling behind it; but what is more important for our present purpose is the fact that in the Temple, as well as in the Tabernacle, cherubims were a special feature in the making of the veil, and were expressly prescribed in the case of the Tabernacle. Now, as to the nature of these cherubim, we are altogether in the dark. Whenever they are mentioned in Scripture, it is nearly always with reference to the ark and the furniture thereof. The Psalmist says, indeed, of God that "He rode upon a cherub, and did fly; He came flying upon the wings of the wind;" and Ezekiel says of the king of Tyre, "thou art the anointed cherub that covereth," borrowing his figure from the cherubim that covered the ark; but in every case we are led back, as it were, to the mystic emblems of the Tabernacle, or the spiritual attendants of the Most High as represented by them. But how are we to understand the directions about cherubims when first given? That

¹ *Ant.* iii. ; vii. 7

some definite idea was conveyed thereby to Moses and to the people is obvious, and it is no less certain that it was connected in some way with the first and only other mention of cherubim in the third chapter of Genesis, ver. 24, "So He drove out the man ; and He placed at the east of the garden of Eden Cherubims, and a flaming sword, to keep the way of the tree of life." This narrative was unquestionably familiar both to Moses and to those who wrought with him ; and it is therefore certain that the cherubim of the ark and the Tabernacle would recall and suggest to the imagination the cherubim placed at the east of the garden of Eden. If, however, the narrative in Genesis was subsequent to the prescriptions of Exodus, then these latter were doubtless in the mind of the writer ; and if it was prior to them, as there can be no reasonable doubt that it was, then it is hardly less certain that these prescriptions were intended to refer to it. And if so, then we arrive at a definite purpose in the appointment of these cherubim as part of the furniture of the Holy of Holies and of the veil concealing it. They pointed back in a very significant way to the original guardians of the tree of life, and to the temporary exclusion of man from access to Him "in whose presence is life," and from contact with the tree of life. Till man was redeemed, it was not possible for him to have unrestrained access to the presence of God. There were positive hindrances on the part of God, and there were personal hindrances on the part of man, as signified by "the flame of the sword which turned every way to keep the way of the tree of life." How great these were was shown by the fierce and bloody rites characteristic of heathen worship, by which it was attempted and hoped to avert the anger of the Deity. Man could find no certain standing ground upon which to approach the presence of God or to win His favour ; he was fain to "give his firstborn for his transgression, the fruit of his body for the sin of his soul ;" and when he had done so, something told him he was no nearer than he was before to the desired end. The way of life and of access to the tree of life was unalterably barred ; and do what he would, he could not pass through. And this, which was the

actual condition of man in the nations of the world, was represented as temporarily the condition of man under the legal dispensation, till all its provisional arrangements should be superseded and the way into the Holiest made manifest by the burdensome rites and ceremonies of the law ; and especially was it signified by the cherubim which abounded in the symbolism of the Tabernacle and in the ornamentation of the Temple. It is very possible that this teaching escaped the apprehension of the people more immediately concerned in it ; but the student of Scripture may certainly consider himself justified in gathering it therefrom. If there are virtually but two occasions where cherubim are spoken of in the Old Testament—one in Genesis, and the other in connection with a reference to the ark, more or less explicit—it is not easy to resist the inference that in the ritual of the one there was a designed allusion to the other, and the debarred access to the tree of life was intended to be symbolized by the cherubim of the Tabernacle and the ark. It must be remembered that “with cherubims shall it be made” was part of the original Divine direction with regard to the veil of the Holy of Holies ; and it was not only scrupulously executed by Moses, but this feature of it was as carefully reproduced by Solomon. We may very well believe, therefore, that the association in the two cases was intentional, and if intentional, it can scarcely be explained but as a reminder in the one case of the original exclusion from the tree of life in the other. But then with reference to this tree of life. In the Proverbs it is said of Wisdom that “she is a tree of life to them who lay hold on her ;” and in the Revelation we read, “To him that overcometh will I give to eat of the tree of life which is in the midst of the paradise of God.” Christ also not only declares that He is the life, but also likens Himself to the true vine ; so that we shall not go very far astray if we understand Him to be indeed the tree of life. The consequence of man’s sin was that he was precluded from access to this tree of life as long as the cherubims guarded it ; and until the way of salvation in Christ was made known, it was not possible for man to eat of the fruit of that tree. It was,

therefore, in the highest degree significant that when Christ died the veil of the Temple, which bore the memorial of man's original exclusion upon it in the broided cherubim, should be rent asunder in token that the barriers which kept him back therefrom were removed and done away.

It seems, therefore, pretty clear that the rending of the veil at our Lord's death represented not only the entrance of the High Priest into the Holy of Holies, as we have Scriptural authority for believing that it did, but also that it really unfolded the meaning of what was intended to be taught by the narrative of man's expulsion from Paradise ; if, at all events, by any means the cherubim upon the veil were designed to recall the circumstances of that expulsion, as seems highly probable. We are accustomed to interpret the symbolism of the Tabernacle by the events of the death of Christ as expounded in the Epistle to the Hebrews ; but it is plain that for long ages it was not possible for the Hebrews so to understand it. The question therefore arises, Was there, or was there not, anything in their own history or scriptures which could help them to understand it? Now, seeing that cherubim were expressly prescribed to be wrought on the veil of the Tabernacle, and that without any explanation as to what they were, is it not at least probable that in the mind of the Lawgiver there was an intentional allusion to the only time they had been mentioned before in the records of the nation, and is it not absolutely certain that the people would discern this allusion and associate the two occasions together in their minds? It may of course have been that they were perfectly familiar with what was meant by cherubim, independently of the earlier narrative ; but given that narrative, and it was impossible not to connect it with the prescribed order of the Tabernacle, and the prescribed order of the Tabernacle with it, and in all probability it was intended that this should be so. But if the view now propounded is correct, two considerations flow from it. In the first place, additional significance is given to the narrative in the third chapter of Genesis, which is often felt to be very obscure. For it at once becomes clear that the proper way to understand that chapter is to regard it as the first and

earliest one in the history of man's redemption. The story of original sin is a very difficult one, thanks, no doubt, in a great degree, to Milton's *Paradise Lost*; but what if that story is to be understood as the representation of a moral fact, and as illustrating the condition of man under the consciousness of sin? The immediate effect of sin is to shut man out from the enjoyment of that true spiritual condition which is expressed by access to the tree of life. The whole history of man illustrates the truth of this condition—all heathen worship has been a fruitless attempt to regain a lost inheritance, or, at all events, an inheritance which is felt to be within the grasp of man if he could but lay hold of it. The altar to the unknown God is but one instance of the same inability to get at the object which, though earnestly desired, is felt to be unattainable. Not seldom this inability assumes to itself the terrific form of a flaming sword which turns every way and effectually bars the way to the tree of life, and then the worship expresses itself in the terrible form of human sacrifices and the like; but, at all events, and as a matter of sober and solemn fact, the way into the Holiest was not made manifest either to Jew or Gentile, and neither Socrates nor Plato could rejoice in the assured favour of the living God. Now, why was this? The story of the cherubim declares it. There was an objective barrier entirely independent of all man's efforts. The way to the tree of life was not only unrevealed, but it was hopelessly and effectually barred as a simple matter of fact. But this condition was not intended to be a final one; on the contrary, it was intended to be only for a time; and the whole after course of revelation was but the gradual unfolding of the purpose and method of God in taking the barrier out of the way, and when He who was the tree of life was revealed and had accomplished that work of redemption for which He was sent, then the flaming sword in the hand of the cherubim fell from them, and they delivered up their guardianship of the way to the tree of life. And so the great truth of the Gospel is that man, as redeemed by Christ his great High Priest, has access free and full to the fountain of life which wells up in the

presence of God, and can put forth his hand at will and take of the fruit of the tree of life which is in the midst of the Paradise of God. This is one consideration which serves to throw light upon the ancient story ; but another is, that the inherent and manifest truth with which that story is thus seen to be fraught goes a very long way towards verifying and authenticating the origin of the story itself. It is either a childish fable and an old world myth, which has no serious meaning and less than no worth, or it is one chapter, and the very first in the history of man's redemption, as that history was written in the providence of God, and as the outlines of that redemption were sketched by Him long before (as must needs be if sketched at all), the details were filled in by the long accumulation of event and the development of circumstance. Thus from the Cross of Christ there is thrown back a light which serves not only to authenticate the Divine origin and significance of that preliminary dispensation which was given by Moses, professedly in the name of God, but also upon that mysterious history which traditionally reaches us from the hand of Moses, and which beyond all reasonable doubt was known to him and to the nation he led forth from Egypt, and which we must assume received the sanction of his authority from the very fact that he adopted its teaching and made it the basis of his own.

The objection may of course be made that to understand the narrative in this way is to relegate it at once to the region of allegory and destroy its value as authoritative history. But this is by no means necessary. If the historical authority of Genesis is accepted, then, of course, that of this narrative is accepted too. But in days like ours, when everything that comes to us in the name of history is questioned and criticised, it may be as well, without dogmatically pronouncing upon the actual historical value of this narrative, to examine and compare it in the light of other parts of Scripture, and if it is found by so doing to receive a large accession of light, then to welcome and hail that light for the sake of the illumination and illustration that it gives.

STANLEY LEATHES, D.D.

JAMES CLERK MAXWELL.

Is it possible for a man of high scientific attainments to retain his faith in the fundamental truths of Christianity? Can a man who is thoroughly acquainted with the intricate relations of matter and the far-reaching influence of physical forces allow that there is any sphere for spiritual agency? Is there not antagonism between the knowledge of nature and the inductions of philosophy on the one hand, and the affirmations and claims of revelation on the other? Let the answer to these questions be found in this sketch of the life of one who was remarkable alike for physical and philosophical research, for humility and diligence in the study of the Bible, and for fervent and practical piety.

Glenlair was the early home of James Clerk Maxwell; not his birthplace, which was Edinburgh; but the country house built by his father, the laird, on the small family estate seven miles from Castle Douglas. The laird planned the house and superintended its erection, being of a very practical turn of mind, doing things with *judiciousness* (as his son said), and always considering what was useful. James inherited this quality, and, when the house was being built (himself not three years old), showed his inquiring disposition by asking for explanation here and there as to "how it doos?" He watched the row of bells in the kitchen, and made a servant ring each one in turn, while his father showed the holes through which the wires went. How the water flowed from the pond, past bridge and smithy, on till it reached the sea where the ships sailed by, was a wonder and a study of his early childhood. His frequent question was, "What's the *go o' that*—the *particular go*?" The father was, of course, delighted. When six years old, at a harvest home, he watched the bow of the violin rather than the footing of the dancers, as if wanting to make out the "*go o' that*" in producing sounds. But better still than questioning, he liked to do or make, and soon showed signs of inventive genius.

In 1839, when he was eight years old, his mother left her only living child, to go to the heavenly home. But her sanguine, active, loving temperament had found means of blessing her boy. She was proud of his inquisitiveness and acquisitiveness, and stored his mind with Divine truths, so that his knowledge of Scripture from earliest boyhood was remarkably extensive and minute. The Book of Psalms he knew so thoroughly that he could tell the place of almost any verse quoted ; the 119th he could repeat from memory. He was also very familiar with Milton.

Thenceforth it became the chief pleasure of his widowed father's life to explain any mechanism or natural object to his son ; until in after years the son took hardly less delight in explaining nature's mechanics to the father. For the unfettered freedom of country life afforded them both ample scope for activity and enterprise, and for observing nature in varied moods. So James found companions in the "child of the mossy pool," in dog and pony, and in children younger than himself, exhibiting those characteristics which proved permanent,—of power over animals and perception of their ways, and of kindness towards all.

After a while came change : he went to Edinburgh. The house of Mrs. Wedderburn, his father's sister, and a frequent visitor at Glenlair, was his home for the eight or nine years during which he was pursuing his studies in the Academy. Unfortunately, his residence here involved some separation from his father, because the laird personally superintended the improvements of his estate in spring and summer. Their letters to each other, however, were frequent ; and when the days shortened, Mr. Maxwell returned to the fireside in Heriot Row. Through all the school years—in fact, through life—they were more like elder and younger brother than father and son. In the formative period of life the father consequently greatly influenced the son, impressed his characteristics on the boy's habits of thought and action, and showed such interest in all his studies and researches as to win recompense of fullest confidence in the after years of success and fame.

Towards the close of 1841, when he was ten years old, the country lad found himself one morning as a "new boy" among the young gentlemen of the Academy. Of course they quizzed his clothes and Corsoch *patois*. That afternoon he went home with his tunic of hodden-grey tweed in rags, his round frill collar crumpled up, his squared-toed shoes with brazen clasps none the better for the day's wear, and thenceforth known as "Dafty." But he was not irritated nor disconcerted; it was a new phase of life, which he contemplated with amused curiosity. Before the academic course of six years was ended, however, he had won his way to the hearts and to the respect of masters and boys. Always observant, always studious, loving nature, loving books, agile, imperturbable, good-natured, humorous, his early youth passed away, each year scoring marks of real progress. Having of course learned his "questions" as a child, he became equally acquainted with the Catechisms of the Scotch and English Churches, and heard the best preachers among Presbyterians and Episcopalians.

From the Academy he went, in 1846, to the University of Edinburgh, where he attended classes during three sessions. Professor James D. Forbes, of the Natural Philosophy Class, was his favourite teacher, and between pupil and Professor there then began a lifelong friendship. Forbes encouraged him in his scientific studies, allowed him the use of his experimental room and apparatus, and introduced him to the meetings of the Royal Society of Edinburgh. To be thus favoured was a proof that he was considered to possess high character as well as genius. Under the influence that thus surrounded him, Maxwell soon burst into a splendour of reputation of which his earlier years gave no adequate promise. It was an unusual thing for papers to be communicated to the Royal Society by a youth under sixteen while still at school; papers which the President, Sir Thomas M. Brisbane, described as ingenious and original. The first was on "Oval Curves, and those having a Plurality of Foci." The paper was read by Professor Forbes himself, who added comments of his own. To mathematical problems there were soon added studies in

polarized light, the spectrum, colour-blindness, magnetism, and chemistry. As he advanced his teachers formed the highest opinion of his intellectual originality and force. Subsequently he passed on to the consideration of rolling curves and the compression of solids, and in 1849 (he was then nineteen) Professor Kelland read a paper written by him for the Edinburgh Royal Society, on the "Equilibrium of Elastic Solids." The Academy lectures interested him greatly, and from Sir William Hamilton he received an impulse which never lost its effect. His boundless curiosity was fed by the Professor's inexhaustible learning. His geometrical imagination predisposed him to accept the doctrine of "Natural Realism," while his mystical tendency found some satisfaction in the distinction and relations between knowledge and belief. In his frequent excursions into the region of speculative thought during the following years, the ideas received from Sir William were his habitual vantage-ground, whence he started and to which he returned. At the same time it was impossible that young Maxwell should listen to speculations about the first principles of things—speculations, too, which, like all Scottish philosophy, turned largely on the *reality* of the external world—without eagerly working out some problems for himself.

From Edinburgh to Trinity College, Cambridge, in 1850. There he soon made troops of friends in spite of eccentricities, for he lent new life to all the intellectual pursuits of his associates. And he was loyal to early religious convictions, for he took his place among those young men who retained the religious faith with which they had been brought up, and many of whom were, as he was, interested in the preaching of the present Bishop of Carlisle. Referring to the neglect, if not repudiation, of the Old Testament, he writes: "Compare the God of Abraham, Isaac, and Jacob with the God of the Prophets and the God of the Apostles, and however the Pantheist may contrast the god of nature with the 'dark Hebrew God,' you will find them much liker each other than either like his." He was always a regular attendant at the services of God's house, and a constant communicant in the

College Chapel. From the first he felt strongly attracted by Maurice's combination of intense Christian earnestness with universal sympathy, and although he sometimes thought that the new teacher was apt to travesty the popular theology in trying to delineate it, he had a deep respect for what was positive in his doctrine. At this time his religious views were greatly deepened and strengthened. "I have the capacity," said he, "of being more wicked than any example that man could set me; and if I escape, it is only by God's grace helping me to get rid of myself, partially in science, more completely in society—but not perfectly except by committing myself to God as the instrument of His will, not doubtfully, but in the certain hope that that will be plain enough at the proper time."

His tutor, William Hopkins, said of him, that he was unquestionably the most extraordinary man he had met with in the whole range of his experience; "it appears impossible for him to think incorrectly on physical subjects; in analysis, however, he is more deficient." "Hopkins looks upon him as a general genius, with all its eccentricities, and prophesies that one day he will shine as a light in physical science; a prophecy in which all his fellow-students strenuously unite." So wrote in his diary Mr. W. N. Lawson, of the Equity Bar. Another contemporary, the Rev. G. W. H. Taylor, has thus recorded his impressions of Maxwell at this period: "This acute mathematician, so addicted even then to original research, was among his friends simply the most genial and amusing of companions, the propounder of many a strange theory, the composer of not a few poetic *jeux d'esprit*. Grave and hard-reading students shook their heads at his discursive talk and reading, and hinted that this kind of pursuits would never pay in the long run in the Mathematical Tripos."

Nevertheless, in January, 1854, at the age of twenty-two, he came out Second Wrangler (Routh First), and equal Smith's Prizeman with Routh. It is said that "he succeeded by sheer strength of intellect, though with the very minimum of knowledge how to use it with advantage under the conditions of examination." Edinburgh friends were naturally

highly gratified. Of course, he took pupils. Investigations oscillated between colour and form, electricity and fluid motion. How earnestly he now set himself to make the most of life in a religious sense appears from the following memoranda written for the quickening of his own spirit :—

“ He that would enjoy life and act with freedom must have the work of the day continually before his eyes ; not yesterday's work, lest he fall into despair ; nor to-morrow's, lest he become a visionary ; nor that which ends with the day, which is a worldly work ; nor yet that only which remains to eternity, for by it he cannot shape his actions.

“ Happy is the man who can recognize in the work of to-day a connected portion of the work of life and an embodiment of the work of eternity. The foundations of his confidence are unchangeable, for he has been made a partaker of infinity. He strenuously works out his daily enterprises, because the present is given him for a possession.

“ Thus ought man to be an impersonation of the Divine process of nature, and to show forth the union of the infinite with the finite, not slighting his temporal existence, remembering that in it only is individual action possible, nor yet shutting out from his view that which is eternal, knowing that time is a mystery which man cannot endure to contemplate until eternal truth enlightens it.”

In 1855 Maxwell gained his fellowship at Trinity, was at once appointed Lecturer in Hydrostatics and Optics, ceased taking pupils, prepared pass-men, read more widely than ever, from the latest novel to newest metaphysic, joined literary clubs, and yet found time day after day literally to make a friend's bed in his sickness. Among the essays written for the “ Apostles ” Club are two on “ What is the Nature of Evidence of Design ? ”—“ Is Ethical Truth obtainable from an Individual Point of View ? ” In the former he states that “ the belief in design is a necessary consequence of the laws of thought acting on the phenomena of perception.”

Busy and useful as he was, he nevertheless had yearnings after the old home and his father's society, and observing the narrowing tendencies of college life, indulged some preference

for a wider sphere. So, learning that the Chair of Natural Philosophy at Marischal College, Aberdeen, was vacant, he sought it, with the warm approval of his father. But a few weeks before his appointment, while they were together at Glenlair, his father came in one day from the garden at noon, sat down to rest, and suddenly died. This was in April, 1856.

Among his new acquaintances in Aberdeen he became most intimate with the family of Principal Dewar, of Marischal College. His deep and varied knowledge, not only of his special and kindred subjects, but also of history, literature, and theology, his excellence of heart, and the religious earnestness which underlay his humorous "phell," were there appreciate and admired. In June, 1858, he married Katherine Mary Dewar. He was still very busy, and had a great deal of correspondence about Saturn's rings, electric telegraphs, tops and colours, investigating phenomena, inventing machines, and forming models. He also took the Adam's Prize, given by St. John's College, in honour of the discovery of the planet Neptune, with an essay on the structure of "Saturn's Rings," which involved the working out of a fascinating problem of no ordinary complexity. This, when afterwards published, brought him no little fame. Sir George Airy described it as "one of the most remarkable applications of mathematics to physics that I have ever seen." But he was not too busy with physical science to think about Divine themes. Here is a passage from a letter, "Eph. iii. 19—Paul can express no more, but read the last two verses, and you will see this is not the crown, but only what can be asked or thought. What a field for ambition there is—for climbing up, or rather being drawn up, into Christ's love, and receiving into our little selves all the fulness of God! Let us bless God even now for what He has made us capable of, and try not to shut out His spirit from working freely."

When in 1860 the two Aberdeen Colleges were united, and Maxwell's Marischal Chair was dispensed with, he was appointed to a similar Chair at King's College, London. His scientific position now became more prominent, as witness the

reading of a most important paper at the British Association Meeting, at Oxford, on "Bernouilli's Theory of Gases." This theory supposes that a gas consists of a number of independent particles rushing about among each other without mutual interference, except when they come into collision. In his paper, Maxwell gave reasons for believing that in air at ordinary temperature each particle experiences on an average more than 8,000,000 collisions in a second! Professor Tyndall has expressed the opinion that "his two principal achievements are two Memoirs, which were printed in the *Philosophical Transactions*, the one dealing with the theory of colours, and the other with the electro-magnetic theory of light." But others will give prominence to his researches in molecular physics. In gases, the molecules are believed to dart about in straight lines till they collide with each other or with the sides of the containing vessel; in fluids, their motion is less free; in solids, it is yet more limited, but there is an inherent tendency to press forward when liberated; so that the movements are vibrations; even in the densest solids these vibrations are constant. In reference to his work among the molecules, Faraday once accosted him as he saw him wedged in a crowd in the attempt to leave the lecture theatre of the Royal Institution. "Ho, Maxwell, cannot *you* get out? If any man can find his way through a crowd, it should be *you*!"

In May, 1861, he delivered his first lecture before the Royal Institution; it was on the theory of the three primary colours. Amid all his lecturing he was still steadily and quietly at work investigating colours, electricity, magnetism, and the electro-magnetic theory of light, laying deep and broad foundations for coming years. But he did not confine himself to the realm of physics. He studied Helmholtz and his philosophy, and on the convertibility of energy made the following remarks: "We see that the soul is not the direct moving force of the body. If it were, it would only last till it had done a certain amount of work, like the spring of a watch, which works till it is run down. The soul is not the mere mover. Food is the mover, and perishes in the using,

which the soul does not. There is action and reaction between body and soul, but it is not of a kind in which energy passes from the one to the other. As when a man pulls the trigger, it is the gunpowder that projects the bullet; or when a pointsman shunts a train, it is the rails that bear the thrust. But the constitution of our nature is not explained by finding out what it is *not*. It is well that it will go, and that we remain in possession, though we do not understand it."

The vacations were spent at Glenlair. Here he had an attack of small-pox, where Mrs. Maxwell alone nursed him, and saved his life. Five years afterwards he was again brought very low by erysipelas; she was again his nurse, and every evening quietly read to him at his own request (it was all his mind could bear) their usual portion of Scripture. Among his letters of this period there is this passage: "I can always have you with me in my mind—why should we not have our Lord always before us in our minds, for we have His life, and character, and mind far more clearly described than we can know any one here? If we had seen Him in the flesh, we should not have known Him any better, perhaps not so well. Pray to Him for a constant sight of Him, for He is Man, that we may be able to look at Him, and God, so that He can create us anew in His own image."

After five years lecturing at King's College, he resigned his post, and passed another five years chiefly at Glenlair. His scientific correspondence was extensive, his studies continuous. The evenings were mainly devoted to English poetry. The prayers he offered in the household were said to be most impressive and full of meaning. The Sundays, after kirk, were spent with the old divines, and he used occasionally to visit any sick person in the village and read and pray with them in cases where such ministrations were welcome. While away in the North he was not forgotten at Cambridge. For four years he was either Moderator or Examiner in the Mathematical Tripos, and suggested important changes in the examination system.

The Chair of Experimental Physics in the University was founded in February, 1871. Who should be the first pro-

fessor? Maxwell's reluctance to accept the post was overcome, and he was appointed. For some time his principal work was that of designing and superintending the erection of the Cavendish Laboratory, and then furnishing and arranging it. Meanwhile lectures were given uninterruptedly on heat, electricity, magnetism, and colour. His researches involved travels in a much wider field.

In his "Discourse on Molecules" before the British Association in 1873, he indicated his position with reference to some modern hypotheses, and recognized the dependence of all things on God. "No theory of evolution," he said, "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. . . . The exact quality of each molecule to all others of the same kind gives it, as Sir John Herschel has well said, the essential character of a manufactured article, and precludes the idea of its being eternal and self-existent. . . . Science is incompetent to reason upon the creation of matter itself out of nothing. We have reached the utmost limits of our thinking faculties when we have admitted that because matter cannot be eternal and self-existent, it *must* have been created."

As the years wore on there was an ever-increasing soberness of spirit and a deepening inward repose, which took nothing from the brightness of his companionship; but on the contrary, kept fresh the inexhaustible springs of cheerfulness and humorous mirth. He was at Glenlair as much as possible. He always arranged to leave Cambridge at the end of the Easter term in time to officiate at the Midsummer Communion in the kirk at Parton, where he was an elder. He who taught others was himself a learner. "I think," he wrote, "men of science, as well as other men, need to learn from Christ; and I think Christians whose minds are scientific are bound to study science, that their views of the glory of God may be as extensive as their being is capable of."

In the spring of 1879 there was a change in his appearance; his friends missed the elasticity of his step, the sparkle

of his eye, the superabundance of his energy. He could do little more than give his lectures during Easter term. The summer brought no accession of strength. On the 2nd of October, in the midst of great weakness and pain, he learned that he had not a month to live. Henceforth he had but one anxiety—the comfort and future welfare of Mrs. Maxwell. During the whole period of their married life (twenty-one years) his ever-present watchfulness and sympathy had supported her even in the smallest domestic affairs; his knowledge, constructiveness, and dexterity had always been ready to minister to her slightest need. Only an hour before his death, when his voice was reduced to a whisper, his words referred, not to himself, but to Mrs. Maxwell.

On learning what must be the issue of his disorder, he returned to Cambridge. His sufferings were very great, but he seldom mentioned them. The end drew near, but he remained perfectly calm and composed, and frequently quoted 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 that Thy grace must give,” &c.

His faith in the grand cardinal truths was firm, simple, and full; and he avowed it humbly but unhesitatingly, with the deepest gratitude for the revelation of the Gospel of Christ. He was calmly and serenely resigned to the will of God, and bowed in meek acquiescence before what he believed to be the Word of God. He had tested and fathomed all the schemes and systems of philosophy, and had found them utterly empty and unsatisfying—“unworkable” was his own word—and he turned with simple faith to the Saviour. To his cousin, Mr. Colin Mackenzie, he said, during the last days, “Old chap, I have read up many queer religions; there is nothing like the old thing after all;” and, “I have looked into most philosophical systems, and I have seen that none will work without a God.” A few minutes before his death he was being held up in bed, breathing with difficulty, when

he said, slowly and distinctly, "God help me! God help my wife!" After this, with a long look at his wife, he gently passed away. It was on November 5th, 1879. His age was forty-eight.

There was a preliminary funeral service in Trinity College Chapel, in the presence of all the leading members of the University. The body was then taken to Glenlair, and buried in Parton Churchyard, the funeral being attended by numbers of his countrymen from far and near.

The unexampled impression which his death produced at Cambridge was due to other causes besides his scientific eminence. A deep and widespread emotion found utterance in St. Mary's Church when the present Master of Trinity, formerly Scholar with him, spoke words of admiration, praise, and sorrow, extolling his rare genius, his high attainments, and his thoughtful and devout piety. Said he, "We may well give thanks to God that our friend was what he was, a firm Christian believer, and that his powerful mind, after ranging at will through the illimitable spaces of creation, and almost handling what he called 'the foundation-stones of the material universe,' found its true rest and happiness in the love and the mercy of Him whom the humblest Christian calls his Father."

So Maxwell passed away. But he was not alone in combining high scientific attainment with unfaltering Christian faith; he was only one among very many. One such died a few months ago—William Kitchen Parker, F.R.S., F.Z.S., F.L.S., F.R.M.S., &c. This was his own statement not long before his death: "When, as a tall farmer's son, I left home to study science, I said, 'I am going to serve God;' and I gave myself to God in prayer. The lady where I went said, 'William, read your Bible every day!' William did; but he does not read the Bible only *once* a day now. After fifty years I am not likely to lose sight of Christ. He is my life. I know more about real life in Him than about natural life. 'Christ in me the hope of glory!' What a little thing is Science to put against that!"

T. T. WATERMAN.

THE INFLUENCE OF CALVIN ON THE MUSIC OF THE REFORMED CHURCH.

CALVIN "seems never to have recognized music as a means of religious expression, scarcely even to have appreciated it as an aid to devotion, and the music of his followers has suffered accordingly." These words, copied from the late Dr. Hullah's *Lectures on Musical History*, may be taken as representing the popular view of Calvin's relation to Church music. The Genevan Reformer was, it is said, too much of a theological formula to have anything of the genius of song, and this unfortunate defect has entailed upon all the Churches which have taken him as their model a poverty in music to be found in none of the other denominations of Christendom. According to Dr. Henry Allon, Calvin was "utterly destitute of musical sensibility, as every page of his works and every element of his character indicate. . . . The musical Luther has filled Germany with rich Church hymnody: the unmusical Calvin has so impoverished Puritan and Presbyterian worship that its rugged, slovenly psalmody has become a byword." This is more pronounced than the popular view, and yet the writer cannot help adding, though he thinks it "strange to say," that to Calvin we owe the introduction of metrical psalmody into the Reformed Churches of France.

In truth we owe Calvin a good deal more than that. The austerity of his character and the hardness of his theology did not prevent him taking a comprehensive and intelligent view of the music of the Church; and we shall find that, though not a trained musician like Luther, he was yet by no means so averse to the use of music as he is generally supposed to have been. It may be readily allowed that in their zeal to extirpate all that had been associated with the worship of the ancient Church, Calvin and his followers—in the interdicting of the choral song and the wholesale destruction of organs—went much further than we should now deem necessary or

expedient. Let us, however, remember the glaring abuses of the Romish Church—the shutting out of the people from participation in the services and the use of a language which few of the worshippers understood—and we shall then see how much we really owe to Calvin for having provided a body of material by means of which every one could join in direct praise to his God, both in the church and at the fireside.

Perhaps the best answer to the charge of “musical insensibility” brought against Calvin will be a brief consideration of the Reformer’s labours in the cause of psalmody. It was in 1534, when he was in his twenty-fifth year, that Calvin abandoned the Church of Rome. Shortly after this, in 1537, we find him at Geneva, where, with the co-operation of Farel, he presented to the Council a scheme for the organization of the Church, in which, unlike one who had no love for music, he suggested the introduction of singing into Divine service with the object of infusing into it more warmth and life. The Psalms he recommended as the best means for effecting this purpose, and his desire was to have some children instructed in a “modest and ecclesiastical song,” which they were to sing aloud while the congregation listened attentively and joined in their hearts with the melody until such time as they could sing it with tolerable correctness. This design was not carried out, for Calvin was soon afterwards expelled from Geneva; but we shall see that he never abandoned it, and meanwhile Clement Marot, the Court poet of Francis I., was independently preparing the materials for carrying it into effect.¹

What object Marot had in view when he began the versification of the Psalter cannot be said; but, at any rate, we find that by the year 1539 he had completed thirty Psalms. These Psalms soon became very popular, though not exactly in the way devout Protestants would now commend. They were taken up by all the fashionables of French society, and sung to the profane ballad tunes of the

¹ It is a curious coincidence worthy of notice that Marot and Sternhold, the first versifiers respectively of the French and English Psalms, each occupied a post at Court.

time. The Emperor, being fond of hunting, adopted as his favourite Psalm, "As pants the hart for water-brooks," and one whom he had slighted sung, as being specially suitable, "Lord, from the depths to Thee I cried." Isaac D'Israeli has found considerable amusement in drawing a picture of a dissolute Court singing the Psalms to secular airs. There can be little doubt, however, that the advent of Psalm-singing in the French Court marked the beginning of a real religious revival.

Calvin arrived at Strasburg in September, 1538, and here he began to put his old plans with regard to psalmody into execution. He had been appointed to the charge of a congregation very soon after reaching the city, and he seems to have lost no time in getting together materials for a limited service of praise. A letter, written by Zwick of Constance, and dated Nov. 9, 1538, has been printed, and in this it is said that "a church had been granted to the French in Strasburg, in which they hear sermons from Calvin four times a week, and also celebrate the Lord's Supper and sing Psalms in their own language." Calvin had himself versified one or two of the Psalms by this time, but in some of his letters he speaks of collecting others, and in 1539 there issued from the press at Strasburg *Aulcuns Pseaulmes et Cantiques mys en Chant*. This volume—of which a unique copy exists in the Royal Library of Munich—contains eighteen Psalms, twelve of which are by Marot; the Song of Simeon, the Ten Commandments, and the Credo, each with a melody prefixed. It was followed in 1542 (Calvin having previously returned to Geneva) by another edition, also printed at Strasburg, this time with a preface written by the Reformer. To this preface he added in the following year some pages on sacred music, which will engage our attention further on.

Marot had meanwhile been obliged to fly from France, and having landed at Geneva, he now, at the suggestion of Calvin, resumed his versification of the Psalter. In August, 1543, he published fifty Psalms, and shortly after this, the ascetic life of Geneva evidently not being to his liking, he took his departure for Savoy, where he died in 1544. Calvin was thus still left

with an incomplete Psalter, and for a time no help could readily be got in carrying forward the work. At length Theodore Beza arrived in Geneva in October, 1548, and to him Calvin deputed the work of finishing what Marot had begun. Beza readily agreed, and his versifications continued from time to time to be added to the Psalter, till at last the work was completed and published in 1562. We thus see that to Calvin is due the honour of having caused the whole of the Psalms to be rendered into metre for the service of the Church. Luther had made a beginning in the same direction, but he soon gave up the work in favour of hymn-writing; and, indeed, Luther's Psalms are rather hymns founded on the Psalmist's words than metrical translations of the original.

To Calvin also we may, in a sense, be said to owe the music to which his Psalter was originally set. We have spoken already of the success of Marot's Psalms in France, and of how they were sung to the profane melodies of the time. When his fifty Psalms were published at Geneva in 1543, it was with difficulty that the printing press could meet the demand for copies, and here also the people sung them to all sorts of tunes, mostly secular. This had always been a source of grief to Calvin, and he seems to have set about remedying the evil at the earliest opportunity. At his instance, as the Psalter gradually grew towards completion, a body of music suitable for its accompaniment grew with it, so that there might no longer be any necessity for the use of secular airs to sacred words. It has not been ascertained beyond the possibility of doubt who were the musicians to whom Calvin applied in securing appropriate melodies for the Psalms. No musical editor's name appears in any of the editions of the Psalter; and the long time which elapsed between its commencement and completion, and the different places at which it was published, would probably involve more than one editorship. In any case, the fact remains that here, in this Psalter of the so-called unmusical Calvin, we find, for the first time, a large number of our grandest Church melodies, including the "Old Hundredth," and many another popular favourite. The tunes, indeed, are now, as they have long been,

“the common inheritance of the Protestant Churches, and are familiarly known to all lovers of psalmody as unsurpassed for simplicity, beauty, and grandeur.” Thus we find that Calvin was not only the first to give the people the whole of the Psalms in metre, but he was also the first who provided for these Psalms a true and distinctive music to which they could be sung in public worship.

In two particulars we think Calvin and his followers erred—first, in not encouraging part-singing in the Church, and second, in forbidding any addition being made to the Psalter. The German Reformers were constantly increasing the number of their hymns and chorales; and although melodies only were used at first, harmony was in course of time admitted. France and Switzerland, on the other hand, rejected any addition to the simple melody, and adhered firmly and exclusively to the metrical Psalter and its tunes as finally settled in 1562. In the latter particular we see the influence of Calvin on the psalmody of the Scottish Church. The use of hymns by the Presbyterians of Scotland dates only from the present century; and so rigidly was the metrical Psalter adhered to that when the “Paraphrases of Sacred Scripture,” now always printed with the Scottish Psalms, were sanctioned by the Church in 1781, many people left and joined other sects rather than sing anything but the Psalms. The leading Reformer of the Scottish Church had sat at the feet of Calvin and had learned from him not a little of the practice which he put in force among his countrymen. Calvin, it has well been said, “sent Knox into Scotland with a theology that was to nurse a brawny race, civilize a people, and with a polity that was to effect the completest and happiest revolution any nation ever experienced.”

During the Marian persecution of the Protestants many of the refugees, including Knox himself, had sought shelter at Geneva, and here the influence of the Swiss Reformer could not fail to make itself felt. It was necessary that a Psalter should be prepared for the exiles in their own tongue, and such a work was issued at Geneva in 1556. The book contained “one and fifty

Psalms"—the majority of which were by Sternhold—and the title-page gave forth that it was "used in the English congregation at Geneva, and approved by the famous and godly learned man JOHN CALVIN." On the return of the exiles this book, subsequently largely added to, was brought with them, and formed the foundation of the first complete Scottish Psalter, published at Edinburgh in 1564. Knox does not seem to have looked upon the service of praise as being of much importance; and we think the strictures which have been passed upon Calvin in respect of the want of musical feeling would have been more applicable to the Scottish ecclesiastic. In the "First Book of Discipline," drawn up chiefly by Knox, we find his ideas expressed in this terse form. "There be two sorts of policie: the one of these sorts is utterlie necessarie, as that the word be preached, the sacraments ministered, and common prayers publicly made. The other sort of policie is profitable, but not necessarie, as that *Psalms should be sung*, and certain places of Scripture read when there is no sermon." There is very little singing of Psalms prescribed as part of public worship, either in Knox's Liturgy, or the Directory issued by the Westminster Divines. In both these manuals only two Psalms are ordered or supposed to be sung during the ordinary Church service, and in regard to the second of these Psalms the Directory allows it to be omitted if it cannot conveniently be sung. We thus see that while the materials of song in the early Scottish Church were scanty and lacking in variety, they were quite sufficient considering the very minor part which was assigned by Knox to this branch of Divine worship. So far as the published editions of the Psalter are concerned, the Scottish Church for nearly a century followed Calvin in having the melody only of the Psalm-tunes: it was not until 1635 that harmonies were printed; but, as we have shown in a former paper, part-singing must have been common in Scotland long before this.

But to return to Calvin. We have spoken of his preface to the Psalter of 1543 as containing certain remarks on sacred music. As this preface has been repeated in all subsequent

editions, and as it fully explains his views on psalmody, it is difficult to understand how it can have escaped the notice of Dr. Burney and other musical historians, who have been mainly responsible for the mistaken notion that Calvin had no feeling for music. In order that readers may judge for themselves, we make the following extracts from this most interesting volume:—"Amongst other things," says the Reformer, "which are suitable for the recreation of men, and for yielding them pleasure, music is either the first, or one of the chief, and we must esteem it a gift of God bestowed for that end. . . . There is scarcely anything in this world which can more powerfully turn or bend hither and thither the manner of men, as Plato has wisely remarked. And, in fact, we experimentally feel that it has a secret and incredible power over our hearts to move them one way or other. Therefore we ought to be so much the more careful to regulate it in such a manner that it may be useful to us, and in no way pernicious."

Explaining his reasons for choosing the Psalms as the sole medium of praise, he remarks, "When we have sought all round, looking here and there, we shall find no songs better and more suitable for this end than the Psalms of David which the Holy Spirit dictated and gave to him. And therefore when we sing them we are as certain that God has put words into our mouths as if He Himself sang within us to exalt His glory." Ending his preface, he says, "Touching the music, it appeared best that it should be simple, to carry weight and majesty suitable to the subject, and to be fit to be sung in Church." There is much more that might be quoted as bearing directly on Calvin's ideas of psalmody; but enough has been extracted to show that the popular view in regard to the musical side of his character is altogether erroneous. He was, as we have seen, the first to provide a metrical version of the entire Psalms for the use of the people, as he was the first to originate and mature a true and distinctive psalmody for public worship; and in the one respect as well as in the other, the Churches of Protestantism will ever remain under a debt of gratitude to him.

J. CUTHBERT HADDEN.

THE ETHICS OF GAMBLING.

THE mass of Englishmen see no harm in winning or losing a little money in betting. They condemn gambling as a vice, but do not consider it gambling to lose only a small sum by betting or card-playing. What, then, is gambling, and why is it wrong? Is gambling a sin in itself, or is it sinful only when the money involved is excessive? Many moralists have affirmed with regret that it is not possible to show why gambling is wrong; and that we can trust only to the prudential motive, that since there is such danger attending it, our own self-interest warns us to leave it alone. But prudential motives are powerless here. Nothing wounds a man's self-love so much as a warning not to play with edged tools. In the teeth of all experience, he hopes to get the pleasures of moderate gambling, and to avoid all the miseries of excess. Nor is it sufficient to condemn gambling as having its source in covetousness or greed of gain; for though this is true of much gambling, it does not cover the whole field. We cannot ascribe to covetousness the moderate gambling of those religious persons whose practice gives respectability to the vice. They are practically indifferent whether they win or lose. They condemn covetousness, and lament the evils of excess as much as yourself; but they maintain that gambling is a permissible amusement, and sinful only in excess.

Let us examine the commonest form of gambling—betting. In order to show that betting is wrong in itself, we must strip it of all accidental circumstances, and present in the most favourable light what is to be said in its defence. A man who professed to govern his life by Christian principles would argue thus, "The excitement of betting is a permissible pleasure. One man likes to spend his money on his garden, another on a foreign tour, on hunting or shooting. I prefer to all these the excitement of betting; and, provided that I do not risk more than I can afford to lose, I do nothing wrong.

I have no right to spend more than I can afford in betting, any more than in buying pictures or old china. In all these cases the morality of the expenditure depends upon the amount which a man is justified in spending on pleasure."

Such is the defence usually put forward on behalf of moderate betting. It is regarded as a legitimate purchase of pleasure. But such a theory of betting is wholly one-sided. It regards the bet exclusively from the loser's point of view. But there are two parties to a bet, and we must look at a bet also from the winner's point of view. If betting is a purchase of pleasure, what of the winner? What did he pay, or whom did he pay? He received some pleasure—for it is unquestionably more pleasant to win; yet he paid nothing—on the contrary, money was paid to him. The theory of purchase breaks down the moment it is examined from the winning side. For the winner bets, the winner enjoys the pleasure of excitement, yet the winner not only pays nothing, but increases his money. The same reasoning also destroys the theory that betting is "the purchase of uncertain reversions," or "the purchase of a chance," and all other theories which regard betting as in any way a purchase. Whatever we may call the thing purchased—a chance, a reversion, or what not—it is equally clear in all cases that the winner does not buy anything. But though the purchase theory fails to explain the facts, it helps to put us on the right track. If A and B make a bet for the sake of the pleasure, A gives pleasure to B, and B gives pleasure to A; so far their accounts balance. But then B, the loser, pays money to A, the winner, for which A returns B nothing in exchange. A's account is all receipts. He receives pleasure, and he receives the money also. B may be happy in the delusion that he has paid for his pleasure; but how can the winner justify himself for taking money for which he gives nothing in return? This is the important fact when we view gambling from the standpoint of the ledger, that the winner gives nothing in exchange for the money he receives. This has been put forward by Whateley, Kingsley, and Spencer. It has been replied that this dictum of Whateley's that "a bet is an effort to obtain money without giving an equivalent is

absurd ; so is begging." But it is a fact, and not an arbitrary dictum. That no equivalent is given in begging does not prove that an equivalent is given in betting. It only shows that the definition is too wide and must be limited by inserting the word "mutual." It is generally said that the winner did give an equivalent, for he gave the pleasure which the loser was willing to pay for. But if the transaction be brought to the test of the ledger, and the three factors, A's pleasure, B's pleasure, and the money, be placed in their proper columns, it will be seen at once that the pleasure A gives is balanced, or more than balanced, by the pleasure A receives, while the money A receives has nothing to set against it. A's ledger will read, "received pleasure," and in the corresponding column "gave pleasure ;" but then, again, "received five pounds," "gave nothing."

Since the purchase theory in all its forms completely fails to explain the facts, we must start afresh with a new analysis of a bet. Let us suppose two wealthy gentlemen to make a fair bet on a horse-race. A thinks that Eclipse is the best horse ; B thinks there is at least one horse of superior speed. A's judgment of horseflesh is in opposition to B's judgment of horseflesh. Each is so confident of the correctness of his own judgment that he is willing to stake money on it. The bet is made, and B loses. The result shows that A's judgment was more correct than B's, and B pays his money over to A. Such is the external aspect of a fair bet. Let us now examine it from the moral side. A has used his superior judgment of horseflesh to inflict a loss upon B. Each believed his own judgment to be superior ; each wished to demonstrate that superiority by inflicting a loss upon the other, by extracting a visible, tangible proof of superiority. The infliction of an injury is the plainest proof of superior power ; and to win this proof of superiority each was willing to risk something of his own. Such is the moral aspect of a fair, friendly bet. Of course, in most cases each party uses what he thinks to be his superior judgment simply to get his neighbour's money without giving anything in return. But whatever the motive may be, the fact is the same. There is a

mutual attempt to extract money without giving anything in exchange.

Hence, gambling has been defined as an attempt to get without giving ; or, as a witty Bishop put it, to get your *quid* without giving your *quo*. As a short definition this will serve well ; but the comparison of begging mentioned above renders a fuller definition desirable.

We may define gambling as a *mutual* attempt to get another's money without giving anything in exchange, by means of superior judgment, skill, or luck. This will include all forms of gambling, for the famous *Raindeer* or *Reindeer* case decided that the use of exact knowledge in betting was not gambling, but swindling, since the element of uncertainty was excluded. Betting on races implies a belief in superior judgment, or luck. Playing cards for money implies belief in superior judgment, skill, or luck. Tossing, cutting, raffling, are decided by luck only. Here, then, is the proof that gambling is a sin *per se*, independently of the amount of money involved. The gambler trusts to what he believes to be his superior judgment, skill, or luck to inflict an injury on his neighbour : the injury being that he extracts money from his neighbour for which he gives nothing in return.

It has been said that the consent of the loser does away with the wrong : he was willing to risk his money, and he is willing to pay. Now, it may be a useful maxim of law that *volenti non fit injuria*, but this principle does not hold good in morals. If an act is wrong in itself, consent does not make it right. Fornication does not cease to be a sin because of consent. In duelling, both parties consent to risk their lives, as two gamblers consent to risk their money ; but duelling remains a sin in spite of such consent. That the loser consented to risk his money does not make it right to take his money without giving an exchange. But is it so certain that the loser does pay voluntarily ?

In the physical world we are under the influence of many forces of which we are not aware so long as all goes well. Who is sensible of the great pressure which the force of gravity is at all times exercising upon him ? We seem to

move about quite freely, as if no such force existed. But let a man slip, and he is at once sensible of the operation of a terrible force. The slip does not create any new force, it only makes manifest the pressure of a force which had been acting all along, though he was not aware of it. So in the moral world, we are influenced by many forces of which we are not always conscious. The loser of a bet is acted upon by two of the most powerful forces we know—the sense of honour and public opinion. So long as it is easy to pay, he appears to pay voluntarily, because he thinks he is doing an honourable act ; but let him refuse to pay, and he is at once made aware of the terrible forces which are coercing him. He knows that if he does not pay, he will be excluded from society as dishonourable ; he will be cut by his equals as no gentleman ; he will be disgraced in the eyes of the world, and in his own eyes. And this penalty will be enforced whatever be the amount of the money. It was this social penalty which forced men with wives and families to risk their lives in duels. It forces men now to beggar wife and children, to commit any crime rather than not pay these so-called debts of honour. This terrible force is always acting, though not always manifested. As soon as the loser finds a difficulty in paying, the social penalty becomes an engine of extortion in the hands of the winner. The supposed consent of the loser is merely consent to the necessary conditions of gambling. The duellist consents to the laws of duelling, but does not receive a bullet or a sword-thrust voluntarily. In fact, two gamblers are like two buccaneers. Each is willing to risk his own goods in the hope of plundering his neighbour. Each trusts to his superior judgment, skill, or luck ; but the gambler wields a weapon more dreaded than the sword—the social penalty. It is no defence to allege that this social penalty is nothing more than the pressure which society puts upon all its members to make them keep their word of honour ; that the loser agreed to pay under certain conditions, and society compels him to keep his word now that the conditions have come about. This is quite true ; but so far from exculpating the winner, it aggravates his offence. This social

pressure, intended for the good of society, is perverted by the gambler into an engine of extortion. The winner forces the loser to keep a promise which he ought never to have made, and prostitutes to his selfish greed one of the noblest of human motives—the sense of honour.

The heathen philosopher, Aristotle, was in advance of most Christians in regard to gambling. The light which lightens every man guided him into truth. In *Nic. Ethics* iv. 1 he writes, that certain persons incur the charge of being greedy of base gain ("filthy lucre," 1 Tim. iii. 8); such as the gamester, the stealer of a bather's clothes, the footpad. "The gamester gets gain from his friends, to whom one ought to give." Thus the heathen moralist cried shame upon a practice of which Christians are not ashamed. The heathen saw what the Christian refuses to see: that to win money by gambling is to make gain out of friends, to whom one ought to give. This truth was brought home to the great Wilberforce by sad experience. He won six hundred pounds by an evening's play, and found that the losers had great difficulty in paying him. His sensitive conscience told him that he had wrought ill to his neighbour, and no sophistry could induce him to play again.

Playing cards for money is to be condemned on the same ground as betting. It is an attempt to gain another's money without giving anything in exchange, by means of superior judgment, skill, or luck. It is sometimes said that "with such low stakes no one really cares whether he wins or loses, but it makes people play more carefully." But if people are made more careful in playing, even for small stakes, it shows that they do care about losing even that little. Though the penalty of carelessness is so small, they do their best to avoid it; they take extra pains, because they do not wish to lose their money. And if, when they have done all they can to prevent it, you still extort from them what they do not wish to lose, you inflict an injury on them; a small injury, perhaps, but still an injury which they did their best to avoid. Because you do not stab or shoot a man, you are not free to black his eye, or even slap his face. Or if it be said that "even a small

stake adds to the excitement, and therefore to the pleasure of the game," we ask, Whence comes this heightened excitement? Plainly from fear of loss and hope of gain. And whence this increase of pleasure but from the hope of getting without giving? For the pleasure of the game is a mutual gift, but the winner gives nothing in exchange for the money he receives.

Many religious persons, however, do gamble. They have no intention of inflicting any injury on their neighbour; and provided the loss is such as they think he can afford, they are satisfied that no harm is done. Such persons are either influenced by old and bad traditions from times when the money was the object of the game, or they act without thought, confident in their own good intentions. They make the character of the act to depend upon the motive only. To take an illustration: A fight in anger, or for a money stake, is a very different thing from a friendly boxing match, in which two friends give and take blows as an exercise of skill and agility. So the money which passes over the card-table is said to be a willing tribute to superior skill; and you tap your friend's purse with the same gusto as you "tap his claret" in boxing—all in pure friendship.

But the introduction of money into card-playing is wholly superfluous unless the object is to win money, for the genuine pleasure which comes from the exercise of our faculties under ever-shifting combinations can be enjoyed without the interference of money. In boxing a further end is sought, as muscular development or self-defence: the blows given are a condition of attaining this end. But in card-playing the end is attainable without inflicting on a friend a money loss, however small. Moreover, the money won is not regarded in the light of an honourable trophy. No one points proudly to his winnings at cards as he might to prizes for running or jumping. The man who pays his railway fare by his winnings in the train is regarded as a swindler. The professional card-player is not put on a level with the professional cricketer or oarsman. There is a lurking consciousness that such gains are base. Religious people often seek to relieve this uneasiness by giving away their winnings in charity. They do

not scruple to put into the treasury what is often the price of blood, or to offer to the Lord what costs them nothing. Conscience approves of that Cœrulean lady whose husband increased their narrow income by his skill in whist. She argued that it could not be right for a man of honour to live by his wits on the unskillfulness or bad luck of his neighbours. How could a gentleman endure to touch the proceeds of his friends' mistakes or misfortunes? He makes the usual reply, that if they cannot afford to lose, they ought not to play. She rejoins, in a more Christian spirit, "If they are weak and foolish enough to do so, why need you be an accomplice?"

Some men soothe their consciences with the thought that in the long run you lose as much as you gain, and so no harm is done. This is the logic of triangular duels, of boys who bully because they were bullied. What right has A to gain money from B in order to recoup himself for his loss to C? If A steals a handkerchief from B because his own pocket has been picked, it is all the same in the long run for A; but does that justify his conduct? So if gambling is wrong *per se*, as we have seen it is, it is no defence that the end of the year finds a man neither winner nor loser. Besides, the bulk of experience is against this delusion.

The Archbishop of York has pointed out the fallacy. "It was said that the tendency of play was to equalize winnings and losings, that a week's play might result in continuous loss, but that if it was spread over a whole year the gains would balance it. It might be true that in an infinite number of risks there was a certainty of success; but those who believed in such a theory forgot that for the legitimate prosecution of the problem it was necessary that the means should be as unlimited as the risks."

One of the most specious forms of gambling is the lottery. Lotteries have been suppressed by the State because of their evil consequences. They create a feverish excitement, an over-eagerness for riches, a distaste for the slow accumulation of wealth by honest trade or industry. They connect wealth with luck, rather than with labour and diligence, with ability or skill. But Satan often appears as an angel of light. The

gambling spirit decks itself in the garb of piety. Condemned by the wisdom of the civil magistrate, it takes refuge at the horns of the altar. A raffle is the favourite device of the religious bazaar. It is wrong, for the same reason as betting or any other form of gambling. A person who enters for a raffle hopes to get for a shilling an article which is worth twenty shillings (suppose); that is, he hopes by superior luck to get goods to the value of nineteen shillings, at the expense of his neighbours, without giving anything in exchange. To the sin against the law of love he adds the sin of hypocrisy; for he pretends to give his shilling to the cause of God, while in his heart he hopes to gain a twenty-shilling article. It is no defence to say that expensive gifts can only be sold by raffling. The end does not justify the means. The gain is easily estimated, but it is impossible to estimate the moral loss incurred by stimulating the spirit of gambling. State lotteries bring large gains, but these are overbalanced by moral and material loss. The sweepstake is of the same nature as the raffle, except that the gambling spirit shows itself in naked selfishness.

Hitherto we have shown that gambling is a sin against our neighbour. But it is also in many cases a sin directly against God. Many forms of gambling are pure chance, such as roulette, rouge et noir, tossing, dicing, cutting, and the like. In these cases the gambler trusts only to his luck, and abandons the guidance of reason. To abandon reason for chance is a sin against God. We are stewards of our money, and are bound to use our reason in disposing of it. When we cannot help risking money, we are bound to use our judgment and act according to the probabilities of the case. This leads us to the consideration of what is called gambling in trade. Speculative trading is often called gambling, though inaccurately, for there is always an exchange in trading. In nearly all trading there is an element of contingency. Speculation consists in risking money on contingency. Speculation is lawful (*a*) where there is calculation of probability; (*b*) where the sum risked is not more than the probability warrants. Speculation becomes unlawful (*a*) where there is no

calculation of probability, but an undue trusting to luck or chance rather than to careful judgment; (b) where an excessive sum is risked on a small probability. What is called gambling in trade is morally wrong, because it is an *abandonment of reason for chance*. Traders, like all other persons, are responsible to God for their use of money, and are bound to use it by the light of that reason which God has given for our guidance through this world. In estimating the probabilities, the trader is bound to take account of others who will suffer by his failure, as his creditors, work-people, and the like. Since he risks his neighbours' welfare for his own pecuniary gain, he is bound to be unusually cautious.

Gambling in stocks and shares is one of the crying evils of the day. It is often the real cause of the ruin which is openly attributed to bad times or agricultural depression. But we must distinguish legitimate and illegitimate dealing in shares. There is nothing morally wrong in buying shares with the intention of selling them again at a profit. They are bought at their market value, and there is a fair exchange. The event does not affect the morality of the sale, for each man must be judge of his own interest. Dealing in stocks may become unlawful speculation in the same way as other trading.

But the most popular form of gambling in stocks is that known as dealing in "Options." As the name implies, it is a contract with a stock jobber, who undertakes either to deliver the shares ordered, or to strike a balance between the price on the day of purchase and the price on the day of delivery, at the option of the purchaser. As a fact, there is never any intention of delivering shares, both parties from the beginning intend merely to pay or receive a balance. It is mere gambling, and not trading. A orders ninety-six shares; on settling day they have risen one-eighth, the jobber owes him twelve pounds; or they have fallen three-eighths, and A owes thirty-six pounds. Each party hopes to get his neighbour's money without giving anything in exchange. It is much as if one were to bet that stock would rise, the other that it would fall.

Such a contract is absolutely immoral, because it cannot possibly produce mutual advantage. It is known from the

first that my gain must be his loss. In all moral contracts the intention is mutual advantage; both may gain, and it is intended that both should gain. For the same reason, speculating in "futures" may be moral or immoral. A contract for coal or cotton to be delivered at certain dates is moral because the contract aims at mutual advantage. But where there is from the first no intention of delivering goods but only of paying the difference, a contract is immoral. Mutual advantage is known to be impossible, for what the one gains can be nothing else than what the other loses.

It is astonishing that the public can be so easily gulled. The net is spread in the sight of the bird, and the silly gamblers flutter into it. With charming candour, he is advised to let his profits run, and not to pursue a loss beyond two per cent. That is, if the balance is in your favour, do not ask me to pay you cash, but allow me (nominally) to reinvest your winnings. But if the balance is in my favour, the sooner you pay cash the better. When the stock has gone down only so little as two per cent, let me take it as my winnings from the money which you deposited as "cover." What charming candour! If you win, don't expect me to pay: if you lose, pay up at once. That is the plain English of "run profits and cut losses."

Something should be said upon the various false or partial theories of gambling which have been current of late. Paley coupled gambling with insurance; but the two are wholly distinct. A risk has to be run for some good, and the insurance office takes the risk. That is a fair exchange. But in gambling the risk is created for the special purpose of getting the other's money without exchange. Some have said the sin of gambling lies in the desire to get money without working for it. This would condemn all sleeping partners, and shareholders, and all unearned increment. But the bookmaker works hard for his money, and spends largely in clerks and telegrams. Some have said that the pain of the loser is greater than the pleasure of the winner. This it is impossible to prove, and it is often evidently false. A rich bookmaker scarcely notices so small a loss as a hundred pounds, but if

the money be won by a struggling clerk on the verge of bankruptcy, the pleasure of the winner far exceeds the pain of the loser.

All theories of gambling which make the sin depend upon the amount which the loser can afford to lose are, as we have seen, inadequate. What right has the winner to take anything at all from him? A thief is not justified in stealing from men who can afford to lose. To steal a turnip is theft, though the loss would never be known. If gambling is wrong *per se*, it matters not whether the loser could afford the loss. An injury has been inflicted, little or great: an injury, even if the consequences are trifling. In this respect, gambling differs from drinking, with which it is often compared. We will assume that moderate drinking is beneficial, and only excess is sinful. But a moderate loss is not beneficial. Drinking is a sin of degree; gambling is a vice in kind.

Those who speak of gambling as a sin *per se* have been warned of the danger of inventing new sins. This objection implies that our present standard of morals is absolutely perfect. Morality makes progress only by showing that acts which were once held innocent really involve some sinful principle. This is the only method of progress for the individual or the race. We have a good example in the case of slavery or persecution for religion. Many excellent people saw no harm in owning slaves: many have held persecution a positive duty. No one is so foolish as to say that we have invented new sins because our conscience has been enlightened and we cannot help condemning what our forefathers held permissible. We in our turn shall be condemned by a more enlightened posterity, unless morality should grow stagnant and die. We claim to have proved that gambling is an offence against the Christian law: "Love worketh no ill to his neighbour." To extort money without giving anything in exchange is to inflict an injury, large or small, as the case may be. There may be no intention or desire to injure, but none the less an injury is inflicted—a money loss which the sufferer desired and endeavoured to avoid. The absence of motive may affect the guilt of the sinner, but it does not change the sinful character of the act.

To sum up: we define gambling as a mutual attempt to get without giving, by means of superior judgment, skill, or luck. It is sinful *per se*, as contrary to the law, "Love worketh no ill to his neighbour."

J. SHARPE.

THE DAYS OF UNLEAVENED BREAD.

A CHAPTER IN APOSTOLIC CHURCH HISTORY.

IT was springtime in the year 44 A.D., towards the end of March or the beginning of April. Tiberius Claudius, the "mentally neglected"¹ son of Drusus the elder, a weak and incapable ruler, "a plaything in the hands of his favourites and freedmen,"² had been three years upon the throne of the Cæsars, to which, almost against his will, he had been raised after Caligula's assassination.³ That "vile Oriental," as Renan⁴ has aptly styled him, Herod Agrippa I., the grandson of Herod the Great and the nephew of Herod Antipas, after a career of mingled profligacy and adventure, and in return for services, not always honourable, to Caligula and Claudius, had recovered the whole dominions formerly possessed by his grandfather, and was now under Claudius, King of Palestine, with a royal residence in Jerusalem and an income of twelve million drachmæ. In Jerusalem, at the time above mentioned, the holy week of the Passover was running its appointed course. The solemnities in which the gay capital was engaged were of such sort as to awaken in the breasts of its inhabitants memories at once sorrowful and joyful—sorrowful when they called to mind the hard and bitter service their fathers had endured in the brickfields of Pharaoh; joyful when they thought upon the glorious deliverance these same fathers enjoyed when Jehovah, with a high hand and stretched-out arm, brought them forth from the land of Egypt and from the house of bondage. Nor to the Christians in the jubilant metropolis were these solemnities less provocative of sadness and gladness—of sadness as they remembered that other Paschal season, only eleven years gone by, when their Lord was crucified; of gladness as they reflected how, through His death and resurrection, not a

¹ *Imminuta mens.* Tacitus, *Annals*, vi. 46, 1.

² Schürer, in Rheim's *Handwörterbuch*, art. "Claudius."

³ Josephus, *Antiquities*, xix. 2, 1; 3, 1.

⁴ *The Apostles*, p. 199.

small nation merely, but the vast world of humanity, had been redeemed from a servitude more debasing and a prison-house more fatal than that of Egypt. It is even possible that some amongst these Christians were apprehensive lest the current Paschal week should prove to them not a figurative, but a real season of unleavened bread. Herod Agrippa I., on receiving his kingdom, had unfortunately taken up his residence in Jerusalem, and become "exactly careful of the laws of his country," or, as Renan phrases it, had begun to "attend to his devotions," suffering not a day to pass over his head without its appointed sacrifice;¹ and now, only a short time before the feast, he had evinced a disposition to ingratiate himself with the Jews by once more unsheathing against his Christian subjects the two-edged sword of persecution. Besides maltreating certain prominent members of the Church, he had executed James the son of Zebedee with the sword, and even laid his hands on Peter, casting him into prison, and purposing as soon as the festivities were over "to bring him forth to the people," *i.e.*, to make of him, as had been done of James, a public exhibition at the headsman's block; and the thought of these dire calamities, it is not too much to suppose, may have suggested to the agitated Christians in the city a fear that the Paschal season then speeding by might ever after linger in their recollections as, in more senses than one, "days of unleavened bread." Indeed, one cannot help surmising that Luke himself may have had this pregnant meaning in his mind when, immediately after recording the martyrdom of James and the apprehension of Peter, he inserted the remarkable expression, "Then were" (A.V.), or "and *those* were" (R.V.), "the days of unleavened bread." It is true he may only have purposed by this interpolated clause to furnish a convenient chronological datum by which to mark the season of the year when the misfortunes and deliverances rehearsed were experienced by the Church; yet it would hardly have been wonderful had he also designed in this way indirectly to characterize the view the early Church took of that eventful period in her history.

¹ Josephus, *Antiquities*, xix. 7, 3.

I. The "days of unleavened bread" for the Jerusalem Church in the spring of A.D. 44 were ushered in by *the martyrdom of James*. The impression left by a perusal of Luke's narrative is that the execution of Zebedee's son occurred only a short time before the opening of the Paschal week; and with this accords a tradition reported by Jerome that James was beheaded on the 15th of Nisan, or on the anniversary of the crucifixion. That no details have been preserved of either the circumstances which led to this deed of violence, or the manner in which it was carried out, may seem surprising when one calls to mind the prominent position occupied by James in the Apostolic College, and the signal regard in which he was held by Christ. Included among the first three in each of the synoptical lists¹ of Apostles, he had been privileged to be with Christ on some of the more important occasions in His earthly ministry,² and had been honoured to become the first among the twelve at least to seal his public testimony with his blood. Nevertheless, the story of his martyrdom is practically passed over in silence, which may suggest that heaven does not always estimate its heroes by the places it assigns them on the registers of time. Yet small difficulty need be felt in apprehending either how the sword of persecution should have once more been unsheathed, or why it should have selected James as its earliest victim. As Pressensé³ observes, "The time was gone by when the Church was in favour with all the people." Then the growing clearness with which the Church was disclosing its purpose to overstep the boundaries of Judaism⁴ could not fail to render it obnoxious to the leaders of the national religion. The circumstance, also, that under Claudius, in consequence of Herod's friendship, the Jews enjoyed immunity from such oppressions as had been practised towards them by Caligula,⁵ gave their leaders both time and a free hand to concert measures for stamping out by persecution, if they could, the

¹ Matt. x. 2; Mark iii. 17; Luke vi. 14.

² Mark i. 29; Luke v. 10; Matt. xvii. 1; xxvi. 37.

³ *The Early Years of Christianity*, i. 87.

⁴ See Acts x. 45; xi. 18, 20.

⁵ Josephus, *Antiquities*, xix. v. 3.

hated sect of the Nazarenes. And finally, the character of Herod himself was of such sort that he could scarcely do other than in his utmost soul hate the new faith. Notwithstanding his pretended devotion to the rites of Moses, he was at heart a heathen and a hypocrite. Addicted to public games, musical festivities, and gladiatorial combats, he practised the outward forms of piety ; not because he loved them, but because he saw them to be requisite to keep himself in favour with his subjects. The incident related by Jost,¹ that once when reading in a public service, "One from among thy brethren shalt thou set king over thee : thou mayest not set a stranger over thee which is not thy brother" (Deut. xvii. 15), Agrippa burst into tears, whereupon the people cried out, "Be not distressed, Agrippa, thou art our brother." This incident, which Plumptre² cites as an illustration of Herod's "sensitiveness to praise or blame," if authentic, may, with as much probability, be interpreted as showing that this "pious sovereign," like other potentates that have lived since, was a skilful actor, and knew how to play a part. Hence, to suppose that Agrippa I. could be really enamoured of a faith which denounced hypocrisy and demanded spirituality of worship, as did that of the Christians, is to suppose that he could act clean contrary to his essential nature. Besides, as Besser³ remarks, he had inherited the passion of hostility against Jesus from his fathers, one of whom, Herod the Great, had persecuted the child Jesus, and another, Herod Antipas, had beheaded John the Baptist. And perhaps the secret reason of his opposition, as of theirs, to the cause of Jesus was that, being himself a false sovereign, he could not tolerate the Church's testimony to her true King. If the stroke of persecution descended first on James, that may be accounted for by remembering the fiery zeal which, in earlier days, belonged to him as well as to his brother John, which gained for him, as for John, the appellation "Son of Thunder," and which may possibly have flashed forth in some indignant philippic

¹ *Geschichte Judenthums*, i. 420.

² *The Commentary for Schools*, Acts xii. 3.

³ *Bibel-Stunden* III. i. 588.

against the hypocritical monarch or the unbelieving rulers as enemies of Jehovah and His Anointed. If it was so, it is more than likely that James calculated beforehand the risk he ran in rebuking privileged and titled wickedness, mayhap called to mind the fate of the Forerunner who reproved Antipas, and was not surprised when Agrippa's guards arrested him and threw him into prison. There is no reason to believe that he languished long in gaol, or was put to the trouble of a trial,¹ though tradition, handed down by Clement of Alexandria and Eusebius of Cæsarea, relates that there was both an accusation made and a defence offered. Simply by royal mandate he was sentenced to die by the sword, most likely by decapitation—a Roman form of punishment as distinguished from the Jewish, which was stoning—and was led forth without delay to the place of doom. How he met his fate can only be conjectured; yet it need not be doubted that through grace, as His Master once promised, he was able to drink of that cup of which his Master before him had drunk, and to be baptized with that baptism wherewith his Master had been baptized. The last-cited authors report an incident connected with his martyrdom which, if true, lends a pathetic interest to the tale. Struck by the calm fortitude of his prisoner, the officer who guarded the Apostle (or, according to another version, the false witness who had testified against him) was moved to repentance, confessed Christ, and was led forth along with the Apostle to be put to death. On the way to the scene of judgment, having asked the Apostle to forgive him, he was at once pardoned; the Apostle, having paused, looked upon him with a glance of love, embraced him and kissed him, with the words, "Peace be to you!" It was a beautiful indication of a beautiful spirit, a happy proof that, like Stephen, who had preceded him by a few years along the way of the Holy Cross, he had learned the sublime lesson their common Lord had taught when on the cross He prayed for His executioners, "Father, forgive them, for they know not what they do." Where the precious dust of the slaughtered disciple found a resting-place has not been recorded, though

¹ Cf. Renan, *The Apostles*, p. 202.

to-day, within the walls of Jerusalem, an Armenian convent, dating from the eleventh century, is supposed to cover the spot on which he fell.¹ There is no reason to believe that it does, yet the existence of such a shrine may be allowed to bear witness to the affectionate regard with which the Christian Church has preserved the recollection of her first Apostolic martyr.

II. Having found that the two great religious parties among the Jews, the Pharisees and the Sadducees, were gratified with his action in removing James, Herod Agrippa I. resolved upon a bolder step, *the arrestment of Peter*, which in all probability would have been followed, as in the case of James, by speedy execution, had it not been that the Paschal festivities were at hand, if not actually begun. Though serious outbreaks of fanaticism were not unknown in connection with the Passover,² it was not customary to conduct executions during the currency of the Holy Week, though to this the crucifixion of Jesus had been an exception; and in any case, Agrippa, being a "pious" sovereign, would not profane the sanctity of the season by another act of bloodshed; which, besides, could be performed with as much effect when the festival had closed, and before the congregated crowds had dispersed to their homes. Accordingly, when arrested, the Apostle was safely locked up in the Tower of Antonia, on the north-west corner of the temple—a fortress originally built by John Hyrcanus for a residence, and subsequently enlarged by Herod the Great "in a magnificent manner," four quaternions of soldiers, sixteen warriors, being told off to guard him in case of an escape or a rescue being attempted. It seems surprising that either of these should have been considered possible, the more especially as in his case the Roman practice had been followed of attaching a prisoner to one or two soldiers by means of iron chains. One cannot help surmising that such extra precautions were an indication that neither Herod nor the Jewish authorities were at ease in their minds

¹ Kitto, *Daily Bible Illustrations*, last vol., p. 241; cf. Thomson, *The Land and the Book*, p. 633.

² Josephus, *Antiquities*, xiv. 2, 1.

in dealing with the followers of the Nazarene, and that, in particular, they could not be sure what might happen in the case of one who had once already been mysteriously liberated from confinement,¹ notwithstanding that the prison doors were securely bolted and the keepers never off the watch, and who more than once had shown himself to be possessed of (at least seemingly) supernatural power. Had Peter's captors regarded him as a common, every-day criminal, they would unquestionably have deemed it preposterous that sixteen men, or even four at a time, should be required to keep him safe. That such unusual precautions were judged necessary is one of those indirect and latent marks of historic truth with which this narrative abounds, and which are even more valuable than direct proofs, because of being undesigned.

There is no need to inquire how Peter behaved when he found himself in prison. Incarceration was for him unfortunately no new experience;² and although in the present instance there were grounds for apprehending he would never leave his cell till he was marched forth to die, it does not appear that the prospect filled him with dismay, or even disturbed his nocturnal slumbers. Kitto conjectures that a recollection of Christ's words addressed to him beside the Galilean lake³ may have helped him to entertain the conviction that the Lord would "in some way, even at the last moment, interpose for his release;" but even should this be waived, it cannot be extravagant to credit Peter with a fortitude which enabled him to look death in the face without a tremor, whether that death should be by crucifixion or by decapitation, when to him the full significance of death as "a departing to be with Christ" must have been perfectly understood. That on the night which he expected to prove his last he should have slept so soundly that, in order to awake him, the angel required to smite him on the side, was no more remarkable evidence of composure than has frequently been furnished since by lesser men. In the beginning of the Marian persecution, writes Froude,⁴ "Rogers was to 'break

¹ Acts v. 23.

² Acts iv. 3; v. 18.

³ John xxi. 18, 19.

⁴ *History of England*, v. 488.

the ice,' as Bradford described it. On the morning of the 4th February (A.D. 1555) the wife of the keeper of Newgate came to his bedside. He was sleeping soundly, and she woke him with difficulty, to let him know that he was wanted ;" and those acquainted with Scottish history will recall the last sleep of the great and good Argyle in Edinburgh prison "before he stooped his honoured head to the loaded axe of the 'maiden.'" That Peter exhibited such quietness of spirit as he did when on the verge of martyrdom was a proof that he was then a better man than he had been when, after having boastfully exclaimed, "Lord, I will lay down my life for Thy sake," to save his skin, he first ran away, and then denied his Master with oaths and curses.

The only troubled hearts on that eventful night, there is reason to believe, were those of the alarmed Christians in Jerusalem, who having already been deprived of one of their Apostolic leaders were in momentary expectation of losing another, in some respects the greatest of them all, the trusted leader of those leaders. Judged by ordinary standards, the fate of Peter was sealed. The probability that he should escape the headsman's sword was infinitesimally small, if not absolutely *nil*. Nevertheless, as people who had not been initiated into "modern science," and in their lack of culture believed that "all things were possible with God," the Jerusalem disciples betook themselves to prayer, appealing with exquisite *naïveté* to Him in whose hands were all men's lives, those of kings as well as common men. And their prayer was answered. Ere the morning dawned, and while yet their supplications were on the way to heaven, the Apostle stood amongst them alive and well. Unless the narrative is to be set aside as wholly unhistorical, this was as clear an example of "answered prayer" as the most thoroughpaced rationalist could desire. Renan, who has scruples about "the angel," and is silent concerning the Church's prayers, for reasons which he does not specify, has nevertheless no doubt that Peter was lodged in the Tower of Antonia by command of Herod Agrippa I., and that on the night before the morning fixed for his execution he escaped ; but if between these two perfectly authentic

occurrences it really happened that the Church prayed as above described—and the credibility of this is as little assailable as is that of those—it will be hard to convince an ingenious mind that Peter's deliverance was not effected in answer to the Church's prayer, was not something more than a happy coincidence, was not a conspicuous fulfilment of that Scripture which says, "Before they call, I will answer; and while they are yet speaking, I will hear."

Scarcely less impracticable will it be to resist the conclusion that Peter's escape was due to miraculous intervention. Exactly this was Peter's own account of the matter to his friends assembled in the house of John Mark's mother, when he "declared unto them how the Lord had brought him forth out of the prison." The report preserved by Luke, of the descent of the angel into Peter's cell, of the falling off from Peter's hands of the chains with which he was bound, of his hasty dressing of himself in obedience to the angel's command, of his semi-unconscious, half-waking, half-dreaming action in following his celestial guide out into the street, through the iron gate which mysteriously opened of its own accord, of the angel's leaving him at the end of the first narrow lane, and of his coming to himself in the night air;—all this, which the third Evangelist has reported, was probably derived by him from the lips of Peter himself, or of John Mark, whom he subsequently met in Rome in the company of Paul;¹ and unless his report is to be discarded as utterly unhistorical—and Renan frankly admits that "it is so lively and just that it is difficult to find in it any place for prolonged elaboration"—it will need to be conceded that Peter's rescue was brought about by miracle. The brilliant French *savant* just cited recognizes this; but unwilling to admit anything that savours of supernatural, can only go the length of saying, "A circumstance with which we are unacquainted, and which was regarded as miraculous, opened Peter's prison"—a mode of explaining this occurrence which Beyschlag² seems to favour. Other writers have endeavoured to show

¹ 2 Tim. iv. 10, 11.

² Riehm's *Handwörterbuch*, art. "Petrus."

how Peter's escape might have been effected by purely natural means ; one ascribing it to an earthquake which may have paralysed the keepers with fear and caused them to become as dead men, as a similar convulsion of nature did to the watchers at Christ's tomb ; another supposing that Peter's guardians were bribed by some Christian friends of the Apostle to permit his liberation ; and a third party conjecturing that the keepers themselves may through compassion have connived at his flight. But each of these hypotheses is open to as serious objection as that for which it is proposed to be substituted. If Peter's deliverance was brought about by an earthquake, why should Luke not have simply said so, as he does when reporting a similar occurrence which took place at Philippi ?¹ or, alternately, why should he have transformed the one earthquake and not the other into an angelic appearance ? Then though Peter's friends might conceivably have resorted to "corruption" in order to obtain his release, one naturally asks, How would it have fared with Peter's Apostolic reputation had he accepted deliverance through such doubtful means ? Would there not have been a likelihood of something taking place, not dissimilar to what, according to tradition, happened at a later period, when Peter, no longer in Jerusalem, but at Rome, having escaped by purely natural means, as he walked along the way outside the city, was met by Christ, who appeared once more to be bearing a cross, and who, when desired by the disciple to say whither He was going answered, "I go to Rome to be crucified afresh !" from which it is said the aged disciple understood that the Master disapproved of his escape ; and, understanding this, returned to his captivity and died ? And if finally the four quaternions of soldiers, or even four of the sixteen, were simultaneously moved by pity to brave death in order to liberate a comparatively obscure prisoner, what can be said but that they were paragons of self-denying virtue such as history knows little of. The truth is, that no naturalistic theory whatever will explain the escape of Peter, unless the historic credibility of the record be first broken down ;

¹ Acts xvi. 26.

but inasmuch as the grounds on which the truthfulness of this part of Luke's narrative is usually assailed are manifestly insufficient, it seems legitimate to conclude that Peter owed his deliverance "out of the hand of Herod and from all the expectation of the Jews" to miraculous intervention.

To challenge the authenticity of this portion of the Acts on the ground that it relates what, if true, belongs unmistakably to the domain of the supernatural, is practically to beg the question at issue; and, as already indicated, there are in the narrative itself no internal marks of elaboration by the pen of fiction, but rather not a few intrinsic signs of verisimilitude, of which, in addition to those previously mentioned, may be specified Peter's return to the house of John Mark's mother, the behaviour of Rhoda, the exclamation concerning Peter's angel, and Peter's instruction to report what had happened unto James and the brethren. The first of these receives explanation from the circumstance that in all probability John Mark was one of Peter's spiritual children;¹ the second points to the equal footing upon which bond and free had by this time begun to stand in the early Christian Church;² the third harmonizes with the well-known belief which then was current among the Jews, "that every true Israelite had a guardian angel specially assigned to him, who, when he appeared in human form, assumed the likeness of the man whom he protected";³ and the fourth is exactly what one would have expected, from the prominent position which at this time, according to both Luke⁴ and Paul,⁵ James the brother of our Lord held in the Church of Jerusalem. As to the ground on which critics like Volkmar⁶ and Holtzmann⁷ impeach the credibility of the Acts, and of this passage in particular, that the main events in Peter's life have their counterparts in Paul's, one fails to see how this necessarily proves that the narrative in which these incidents are con-

¹ 1 Peter v. 13.

² Acts ii. 44; iv. 32. Compare Lechler, *Apostolische Zeitalter*, p. 323.

³ Plumptre on Acts xii. 16.

⁴ Acts xv. 13.

⁵ Gal. i. 19; ii. 9.

⁶ *Die Religion Jesu*, p. 341.

⁷ *Emleitung in das N.T.*, p. 410.

tained must have been artificially constructed. That, for instance, to Peter's curing of a lame man in Jerusalem corresponds Paul's working of a like miracle at Lystra may be perfectly true; and yet may neither the one story nor the other be false. That Peter healed sick people by his shadow does not demonstrate that Paul could not have done the same by means of aprons and handkerchiefs that had been in contact with his person; nor would the fact that both Apostles performed similar deeds of wonder render it incredible that either could have done works which would have been perfectly believable had they been done only by one. And in like manner may one argue that even had Paul's deliverance from the prison of Philippi been a fac-simile of Peter's from the Tower of Antonia, that circumstance would not have been sufficient to discredit either the one or the other, and far less both; while the dissimilarities between the two are enough to show that Luke's narrative in respect of both is entitled to be received with unhesitating trust.

III. Within a month or two after Peter's deliverance, the "days of unleavened bread" for the Church at Jerusalem came to an end by *the death of Herod Agrippa I.* Happily in treating of this the biblical expositor stands on solidly historical ground; and this fact insensibly reflects upon the authenticity of all that precedes in the relative narration. Josephus joins with Luke in witnessing to the circumstances in which the stroke of judgment fell upon the murderer of James and the would-be destroyer of Peter. Unimportant variations exist in their testimonies, which, however, in the main agree. If Luke suggests that the king's motive for leaving Jerusalem and taking up his quarters in Cæsarea, that "city of sumptuous palaces,"¹ built by his grandfather in honour of Augustus, was the disgust he felt in failing in his project for the removal of Peter, Josephus so far confirms this by stating that Agrippa "loved to live continually at Jerusalem," and that suddenly, after reigning three years over all Judæa, he "came to the city of Cæsarea," with the obvious

¹ Conybeare and Howson's *Life and Epistles of St. Paul*, ii. 306.

intention of residing there for a season. If Josephus omits all reference to the embassy from Tyre and Sidon, which sought the king's presence at his northern capital, he inserts nothing to contradict Luke's statement, but rather indirectly supports it by mentioning, as Luke does, that the flatterers around the king "cried out, one from one place and another from another, that he was a god"—a form of adulation which Renan, following Bengel, Olshausen, and others, recognizes as having been borrowed from Paganism, and as having proceeded from "the Phœnicians who surrounded the king." Then if Luke states not, as Josephus does, that this embassy was received at a festival in honour of Claudius, recently returned from Britain, he at least mentions that the time was "a set day," a great occasion, which led the king to "array himself in royal apparel, and sit upon the throne, and make an oration unto them." Both historians declare that the special flattery presented to Agrippa was that of calling him a god. "The people shouted," writes Luke, "The voice of a god, and not of a man!" "His flatterers cried out that he was a god," reports Josephus. Both affirm that he greedily accepted the adulation—the sacred writer saying, "He gave not God the glory;" the profane stating that "Neither did the king rebuke them, nor reject their impious flattery." Both add that he was instantly thereafter struck with a mortal malady—according to Josephus, with "a severe pain in his belly," which cut him off after five days of extreme agony; according to Luke, with a vermicular disease, from which he suffered till he died—"he was eaten of worms." "The two accounts considered together," writes an eminent physician,¹ "leave scarcely any room for doubt that the cause of death was perforation of the bowels by intestinal worms, inducing ulceration and acute peritonitis," instances of which, he adds, are well known to medical science. If Luke directs attention to the supernatural or Divine agency in cutting off this early persecutor of the Church, saying, "An angel of the Lord

¹ Sir Risdon Bennett, M.D., LL.D., F.R.S., in *The Diseases of the Bible*, p. 101.

smote him," it would almost seem as if Josephus¹ intended to do the same by connecting the king's illness with a fright he received from observing an owl sitting above his head in the public theatre—that bird having been regarded by him as a messenger of evil tidings, in consequence of a very singular experience which three years before had befallen him in Rome. At that time he had been a prisoner standing in bonds before the royal palace of Tiberius, and leaning for grief upon a certain tree upon which sat an owl. Among his comrades in misfortune at the moment was a German, who, having obtained leave to speak with him, predicted his speedy elevation to the highest dignity and power, adding, as he did so, "But do thou remember, when thou seest this bird again that thou wilt then live but five days longer. This event will be brought to pass by that God who hath sent this bird hither to be a sign unto thee." Hence it was not surprising that Herod himself should have regarded his sudden seizure as a direct stroke from heaven, and should have pitifully said, as he glanced round the theatre on his flattering friends, "I, whom you call a god, am commanded presently to depart this life; while Providence thus reproves the lying words you just now said to me; and I, who was called immortal, am immediately to be hurried away by death." In short, the narrative of Luke receives the fullest and most signal corroboration from that of Josephus, who assuredly wrote with no bias in favour of either Christians or their religion, but with a decided partiality for the Judæan king, their oppressor; and in the face of such correspondence between the two narratives as has been above outlined, it will be impossible to maintain the Tübingen hypothesis of the non-historicity of the Acts, with reference at least to the death of Herod Agrippa I. Renan suggests that the symptoms described by Josephus rather "lead to the belief that Agrippa was poisoned," and fancies that "what is said in the Acts of the equivocal conduct of the Phœnicians, and of the care they took to gain over Blastus, valet of the king, strengthens this hypothesis;" but he

¹ *Antiquities*, xviii. 6, 7.

ventures not to challenge the substantial truthfulness of the story.

And this story is valuable not so much on account of its own intrinsic importance, as because of the confirmation it gives to the antecedent narrative. The death of Herod has not been honoured with a place in Luke's narrative merely as an interesting anecdote, either as an example of sudden death, or as an instance of well-merited retribution meted out to a wicked man, but because of its organic connection with what precedes, as showing how God was able to at once punish the oppressor of His servants and remove obstacles from the path of the Gospel. It thus casts a light backward upon the record of Peter's imprisonment and deliverance, as well as forward upon the subsequent progress of the New Testament Church. If the account of Herod's death, as furnished by Luke, be accepted as historical, it will be difficult, on honest grounds, to withhold our assent from that of Peter's escape from Herod's prison; while the statement in the Acts that Herod's death was followed by increased activity on the part of the Christian Church, and by a remarkable diffusion of the Gospel, will be all the more credible when it is remembered that even Josephus admits that by Herod's own subjects his death was felt to be a relief: "They also laid themselves down in public places and celebrated general feastings, with garlands on their heads, and with ointments and libations to Charon, and drinking to one another for joy, that the king was expired." No doubt the warrior priest was vastly shocked at the indignity which was shown to his deceased sovereign; but impartial critics will not hesitate to recognize in the jubilations of the liberated people a truer estimate of Herod's character than in the flatteries of the historian; and Bible students will perceive in the recorded outburst of popular enthusiasm over the bier of the dead king a striking confirmation of the inference they feel constrained to draw from Luke's brief account—that with the demise of Agrippa I., "the days of unleavened bread" for the Church of Jesus Christ in Jerusalem and in Antioch came to an end.

THOMAS WHITELAW, D.D.

THE BIBLE AND SCIENCE.

FACT AND FICTION.

AMID all the phenomena of modern times none are more startling than the brilliant discoveries in the realm of physics, and the increase of biological information. The last century has added more to our knowledge of nature than all the centuries that preceded it. This is matter for devout thankfulness, as knowledge of nature is knowledge of the Author of nature. It might, consequently, have been fairly anticipated that the result would have been a deepening of the consciousness of a God, and a quickening of the religious life in all students of these mysteries. That this has been the case with many of the foremost men in the ranks of science is a fact which cannot be disputed. There are, however, others who unfortunately study with a different spirit; and the very light that ought to have led them to the throne of the Almighty has blinded their understandings, and left them with atoms only as their ultimate producers. We would not be unfair and condemn all men who do not agree with ourselves on this subject, but we cannot help feeling that were the question one of science only, truer conceptions regarding the origin of all things would have found universal credence long ere this. There does seem to be a prejudice in the minds of some against belief in the existence of a Divine intelligence, latent it may be, but yet existent; which warps the judgment, and surrounds the truth with a bewildering fog; causing the student to explain all happenings on mechanical principles, to substitute unconscious impotence for conscious omnipotence, chance for intelligence, and the clashing of atoms for the design of an all-wise Creator. Miss Cobb thinks this is the natural outcome of the "scientific spirit of the age," and that in the shadow of this spirit, "Reverence, Sympathy, and Modesty dwindle, Art and Poetry shrink,

Morality is undermined and perverted, and Religion perishes like a flower before the frost." It would not be easy to imagine a greater mistake. It is not the scientific, but the unscientific spirit that produces these sad effects. To large numbers the scientific spirit is a daily inspiration and an unceasing prayer. Either God did, or He did not, originate the universe; if He did, it is useless to say that the study of the facts which had their source in His mind and heart could darken anything true, bright, or beautiful; and if He did not originate the universe, it is useless to speak of religion at all.

Still the fact remains that the cry is in the air of "A Conflict between Science and Religion," a cry that is so strong and so persistent as to startle and perplex many earnest Christians, who, believing that the oft-repeated vociferation must have in it some truth, ask the very natural question, "If nature be the work of God, and the Bible be His word, how can there be any conflict between the two?" It has, consequently, become imperative that this alleged antagonism should be carefully examined, and the exact facts very explicitly stated. The result will be to prove that no such conflict exists, but that the two are in completest harmony; and mutually aiding each other to a fuller and truer conception of God than could be possible with either alone.

It may here be asked, "Has not Dr. Draper written a book on *The History of the Conflict between Religion and Science?* and, if so, how can any one write a history of the non-existent?" He has written such a work, and in it shown very clearly how utterly illogical and careless some of those whom we shall call scientists—for the want of a better name—are when outside their own department of study. Will it be believed that Dr. Draper regards the Papacy and religion as one and the same thing; so that whatever may be affirmed of the Papacy may be affirmed of religion or of Christianity? He says, "When speaking of Christianity, reference is generally made to the Roman Church," and he tells us that "the attitude of Roman Christianity in the impending conflict, as defined by the Vatican Council," will decide the question. That there

has been conflict between science and *Rome*, and may again be such conflict, no one will deny ; but the strongest protest must be urged against the assumption that the Papacy is synonymous with either religion or Christianity. It must be also borne in mind that religion is not the same thing as the Bible ; the latter being a means, and the former an end. Professor Huxley would probably say there may be conflict between science and the Bible, but even he states there cannot be any between science and religion, Dr. Draper notwithstanding. His words are, "The antagonism between science and religion, about which we hear so much, appears to me to be purely factitious—fabricated, on the one hand, by short-sighted religious people, who confound a certain branch of science, theology, with religion ; and, on the other, by equally short-sighted scientific people, who forget that science takes for its province only that which is susceptible of clear intellectual comprehension, and that outside the boundaries of that province they must be content with imagination, with hope, and with ignorance."¹ That is, content so far as physical science can help them ; but beyond physical there is another science that can lead them rationally to a supersensual religion, which is also capable of "clear intellectual comprehension," and without this they should not remain content. As, however, Professor Huxley tells us, there are scientific people who are confessedly short-sighted, we must discriminate between science and scientist, between nature and interpretations of nature, between stars and astronomy, between facts and fictions. Scientists are students of nature, who discover facts, and conjecture their cause. In their own special province we willingly yield them all honour ; but when they leave that, and begin to reason, conjecture, and infer, we must take the liberty of critically examining their conclusions, and testing the accuracy of their logic. This is all the more necessary as their reasonings are frequently conspicuous by their errors ; in fact, they sometimes form a quarry whence the teacher of logic might obtain abundant specimens of the

¹ *The Nineteenth Century*, No. 106, p. 858.

facility of fallacy. Darwin's Works might have, as a subtitle, "Storehouse of Fallacies," as they occur on almost every page, in one form or other. Now it is an *ignoratio elenchi*, but most frequently a *non sequitur*—they are also stated with an air of authority, and claim to infallibility, that cause many persons to believe them to be genuine reasoning. Professor Tyndall, for example, said, in his address at Liverpool, that "the scientific imagination which is authoritative demands," etc. Surely his imagination, which we all know to be very powerful, ran away with him when he talked of any imagination being authoritative; if his reasoning be frequently not authoritative, how much less his imagination. Still, the word "authoritative" sounds well, and thus serves its purpose. Again, in his *Fragments of Science*, he writes, "We claim, and shall wrest, from theology the entire domain of cosmological theory." We prefer that scientific men should tell us what they have done in the past, and not don the mantle of the prophet by telling us what they will do in the future. Meantime they have not, as yet, taken the first step in this wrestling process. Nevertheless the claim thus put forward justifies theologians in examining its pretensions, and ascertaining whether it is based on fact or on fiction.

With physical conjecture the theologian is not concerned. Why should he try to combat to-day that which may not have any existence to-morrow? What right has the scientist, no matter how carefully or how honestly his guesses may have been formed, to place them by the side of Scripture and say, "My guesses are true; and if Scripture does not harmonize with them, Scripture must be false"? Had Scripture been in harmony with the guesses of past years, it would be out of harmony with the guesses of the present time. Guesses, hypotheses, theories, are necessary for the purpose of directing experiment and guiding research, but they must keep their place. Professor Tyndall states in his *Scientific Use of the Imagination*, "I am blamed for crossing the boundary of experiment and evidence. This, I reply, is the habitual action of the scientific mind, at least of that portion of it which applies itself to physical investigation. Our theories of light, heat,

magnetism, and electricity, all imply the crossing of the boundary." This is at once granted, but as the boundary is crossed by the feet of imagination, imagination may have to retrace its footsteps; theories therefore are only conjectures, and yet how frequently have we been told that Genesis is wrong because it contradicts theories about light. What is really meant being that it contradicts the guess of a scientist. Put in that form, it at once becomes apparent that the contradiction, even if it exists, is not of the slightest consequence. In point of fact, however, there is no such contradiction, for the simple reason that, with one exception, there is no theory of the phenomena of the universe in the Bible. That exception, however, is a notable one, and it is contained in the opening words, "In the beginning GOD." But some may ask, "Is this a theory; is it not a fact?" We most assuredly believe it to be a fact, but as His existence cannot be *physically* demonstrated, we speak of it as a theory that we may have it fairly confronted with the mechanical theory of the atomic philosophers, "In the beginning atoms." Here the Bible and the atomic scientist (not science) are decidedly in conflict, for while the former affirms that Almighty intelligence was before all phenomena and produced the exquisite order and correlations of the universe, the latter affirms with Hæckel that, "all natural phenomena without exception, from the motion of the celestial bodies to the growth of the plant and the consciousness of man, are ultimately to be reduced to atomic mechanics." The conflict, therefore, hypothetically resolves itself into God or atoms. In other words, into intelligence or chance as the author of all existing facts, belief in a God included. Is it not the veriest trifling with reason to talk about blind, unreasoning chance producing, by the accidental clashings of atoms, all plants and all animals, when the highest human intelligence cannot produce one cell of the lowest form of either? But are our atomist friends certain that there are any such bodies in existence as atoms; and if atoms be a fiction what is their position then? They are literally left without a cosmogony of any kind whatever. How, then,

stands the case with regard to the existence of these omnipotent atoms?

Cournot states that "the belief in atoms is rather a hindrance than a help;" and the late Sir Benjamin Brodie (Professor of Chemistry at Oxford) wrote, "I can but say that I think the atomic doctrine has proved itself inadequate to deal with the complicated system of chemical facts which has been brought to light by the efforts of modern chemists. I do not think that the atomic theory has succeeded in constructing an adequate, a worthy, or even a useful representation of those facts."¹ It is perfectly clear that if this doctrine fails chemically, it fails universally; and in its failure involves a host of other guesses that call it parent, such as a universal ether, the nebular origin of worlds, the kinetic theory of gases, etc.² Yet despite the possibly baseless character of his whole system, Dr. Tyndall allows his unscientific imagination to carry him back to a primeval fiery cloud, where he finds, lying latent, the human mind, emotion, intellect, will, and all their phenomena! He admits that before the potential can become thus productive, our notions of matter (*i.e.*, the atoms) must be radically changed, and that "without this total revolution of the notions now prevalent, the evolution hypothesis must stand condemned." We perfectly agree with him. Professor A. Bain has, however, come to the rescue, and completed the revolution. He defines matter as "a double-faced unity, having two sets of properties, two sides, the physical and the mental." These two sides, however, are not sides, but states. "The only adequate expression," he elsewhere says, "is A CHANGE OF STATE: a change from the state of the extended cognition to a state of unextended cognition." We presume this is regarded as a revolution of our notions about matter, though it is hard to say so until we know its meaning. We are to regard matter as a state of extended cognition, and mind as a state of un-

¹ *Chemical News*, Aug. 1867, p. 72.

² Those who wish to see the mechanical philosophy carefully examined and judiciously exposed, should consult *The Concepts of Modern Physics*. By J. B. Staelo.

extended cognition! There is only one substance, but it has two faces, one extended and the other unextended! We leap from the extended condition to the unextended every time we think or feel, for we are told that "the condition of our existing thoroughly in the one [state], is the momentary eclipse or extinction of the other." Whether this "revolution" will aid the theory of evolution remains to be seen. We think not, because it is difficult to believe that the absurd can aid anything, and this is completely absurd. These are the fancies and imaginations—theories, if you will—with which the atomist would displace the magnificent opening words of Scripture, "In the beginning GOD"!

We would in all human sympathy, in gratitude for the splendid work he has done, and in admiration for so great a mind, press on Dr. Tyndall his own words, spoken in his lecture on "Crystalline and Molecular Forces:" "And, if you will allow me a moment's diversion, I would say that I have stood in the springtime and looked upon the sprouting foliage, the grass, and the flowers, and the general joy of opening life. And in my ignorance of it all, I have asked myself whether there is no power, being, or thing, in the universe whose knowledge of that of which I am so ignorant is greater than mine. I have asked myself, can it be possible that man's knowledge is the greatest knowledge—that man's life is the highest life? My friends, the profession of that atheism with which I am sometimes so lightly charged would, in my case, be an impossible answer to the question."

Dr. Tyndall may be charged with atheism, but most assuredly not "lightly" by any one who realizes the gravity of the charge. He is far too philosophical to deny God, but surely he is without God. The very question he asks himself proves it so. Would it were otherwise.

The theologian has thus his ground so far cleared for him that he can afford to stand on one side, a somewhat sad spectator of the struggle between the atomists and the non-atomists, till they decide what they are to oppose to Eternal Intelligence as the Author of the universe.

Scientists, however, have done much more than elaborate

conjectures—they have discovered innumerable and startling facts, that make one pause in wonder, wondering how such things can be. Every branch of science abounds in marvels that almost surpass belief, and make nature a sacred thing. These facts press upon us the question—What relation have they to Scripture, and how do they affect our belief in the Divine inspiration of the Bible? In answering this we must again distinguish between fact and the interpretation of fact, between Scripture and the interpretation of Scripture. The same distinctions must be applied to the word of God that are applied to the work of God; and it may be at once granted that if any *demonstrated* fact in nature be contradictory of any fact in revelation, the latter must yield its ground, and revelation in that instance be pronounced non-existent; that is, it must be given up as a revelation, for no revelation from God can by any possibility be erroneous. As naturalists have blundered regarding nature, so have theologians blundered regarding Scripture; and most of the embittered controversies about Genesis and geology, science and the Bible, have their origin in these mutual blunders. But while the naturalist will insist on fighting with the newest weapons from the armoury of thought, he equally insists that the theologian shall fight with the oldest. To this the latter decidedly objects, and, while fully acknowledging the progress of science, claims for exegesis a corresponding advance. There are now better canons adopted, fuller information is possessed, more correct renderings have been elicited, so that many old interpretations have to be abandoned. Biblical criticism, consequently, like nature criticism, contains fluctuating elements. It would manifestly be a waste of time to contrast these varying quantities with each other, or attempt by their means either attack or defence. This, however, is the very thing that is being done by men on both sides. The sceptic naturalist brings forward his very latest theory, and asserts the untruthfulness of the Bible because it seems out of harmony with it. The Christian, bowing to the authoritative assertion, believes this, and attempts to adjust the statements of his Bible to this new guess, and most probably fails, as he ought to do. Let

each branch of study grow in its own way, doing its own work, unhindered by interference from the other, and the eventual result will be a mutual embrace ; and nowhere will it be more cordial than over the much-battered first chapter of Genesis.

"That may be all true," the scientist can say, "but without waiting for that time you confess there are already facts discovered, and we claim that these facts, or some of them, contradict your Scripture."

In opposition to this it may be safely affirmed that no known fact of nature contradicts a known fact of the Bible. This is a statement of the most important character, and one not difficult to test. A very few illustrations will suffice to show the meaning of the assertion. We are asked, "Whether it be not a fact that from nothing, nothing can come? But we are told that God made everything out of nothing." We reply that, in the first place, if all things were made by God they cannot be said to come from nothing ; and we are so utterly ignorant of the nature of matter that we are unable to predicate any fact whatever about its origin. In the second place, we may not be told anything of the kind, as the word "create" does not necessarily mean "made out of nothing." There are many who have a very strong belief it does *not* mean this. The word *bara* (create) is not used in any other place with this meaning, but always, either literally or figuratively, to rearrange existing materials. In this very chapter it is so used (vers. 21, 27). Neither the great sea monsters, nor man, were made out of nothing, yet the word create is employed. There are other two words used in much the same sense as *bara*, they are *gah-sah*,¹ make, and *yah-tzar*,² form ; and they are treated almost, though not altogether, as interchangeable terms. In one passage (Isa. xliii. 7) they are all found. The distinction between the words seems to be one of degree rather than of kind, indicating differing energies or forces ; *bara*, pointing to that work which is most difficult of accomplishment, so difficult that God alone can do it, and therefore it is applied only to the work of God.

¹ Gen. i. 31 ; ii. 2 ; iii. 2 ; v. 7, &c.

² Gen. ii. 7, 8, 19.

As, therefore, neither scientist nor theologian can state positively the facts of the case, there cannot be any antagonism.

Again, all are familiar with the oft-repeated taunt about "the earth having been made in six days, of twenty-four hours each, which is certainly contrary to fact." The dogmatic way in which this is constantly affirmed would lead any one ignorant of the Bible to think that the twenty-four hours were specially mentioned. The one word day (*yom*) with which we are concerned may be interpreted in three ways—as a period of twenty-four hours; as an indefinite duration of time; or as having no relation to time whatever, but as describing the beginning and completion of a certain work. The first interpretation is now generally abandoned; the second is accepted by most theologians; but the third has much evidence in its favour. The words are, "And there was evening and there was morning—a day." The original words for evening and morning are very suggestive; that for evening is *ereb*, and that for morning is *boker*. *Ereb* is specially significant, meaning a mixture or commingling, a kind of chaos, the beginning of a great work; while *bo-ker* implies the breaking forth of the dawn of the completed task. We find the word *ereb* so used in 1 Kings x. 15, where we read of the "kings of the mingled people."¹ Does it not seem as though the writer would describe the commencement and completion of the successive stages in the preparation of the earth for man? This is quite in harmony with the wording of the fourth Commandment, when the great days of God's working are named in contrast with the small days of man's labours, as the base of an angle of ten degrees may be either an inch or a million miles according to its distance from the angle. The area covered may be a square yard, or a million miles. So the area of man's day may be twenty-four hours, that of God may be a thousand years (2 Peter iii. 8). Some say this interpretation of "day" has been forced on us by the discoveries of geology. If it were so, there cannot be any objection to God's work throwing light

¹ See also Jer. xxv. 20, 24; l. 37.

on God's word. The theologian is glad to receive aid from any quarter that will enable him the better to understand the revelation from God. As a matter of fact, however, the long period interpretation is as old as the time of Augustine. Once more, therefore, science can have no quarrel with Genesis.

What, however, have we to say about the old contest between geology and Genesis as to the succession of life on the earth? We have nothing to say, simply because there is no such contest, as geology has at present nothing to say on the subject; and if theologians were wise, they would not pay any attention to the immature lisplings of an infant science. Professor Huxley will be acknowledged as an authority on this matter. In his lectures to working men he said, "Only about one ten-thousandth part of the accessible portion of the earth has been examined properly, therefore it is with justice that the most thoughtful of those who are concerned in these inquiries insist continually upon the imperfection of the geologic record. For I repeat it is absolutely necessary from the nature of things that this record should be of the most fragmentary and imperfect character. Unfortunately, this circumstance has been constantly forgotten." As, therefore, we cannot separate fact from fiction about the details of this succession of life, it is about time we heard the last about the antagonism between Genesis and Geology.

When, consequently, we ask our opponents to state some facts of nature known to be such by the demonstration applicable to their special case, that are contradicted by equally certain facts of Scripture, we ask in vain; *not one can be named*. When we remember the antiquity of the book, the very slight knowledge of nature possible at the time it was written, the giant advances in the study of nature in recent times, the utter folly of the cosmogonies of other sacred books, and that science even now cannot shake one statement, we may well be thankful for such evidence that the sacred Scriptures are not of man, but that holy men of old wrote as they were moved by the Holy Spirit.

JAMES McCANN, D.D.

CURRENT LITERATURE.

Works of Dr. Vaughan. FEW men have done more than the Dean of Llandaff to bring the truths of Christianity into the domain of daily life, and to show how our most holy faith ought to affect our conduct. We are therefore pleased to see that an enterprising firm of publishers has issued a reprint of Dr. Vaughan's sermons. They are published in nine handy volumes at a very reasonable price, and we may prophesy for them a considerable demand. They are printed without a preface or apology. But then they need no apology; and possibly a preface would be out of place. They have no date on their title page either, but then such interesting and instructive matter as the volumes contain will be always suitable and never out of time. The volume which will chronologically come first is the one entitled *Last Words in the Parish Church of Doncaster* (1), consisting of nineteen discourses delivered in July, August, and September, 1869. These last words embrace a variety of subjects, all treated in a most impressive manner. We observe that in the sermon about Heaven, pp. 132-49, Dr. Vaughan maintains that "Heaven is a state, and not a place, a state of perfected happiness and a society;" but where the society is to be he does not say. The next volume seems to be *Half-hours in the Temple Church* (2), which contains twelve sermons on different topics. Dr. Vaughan is often very happy in the choice of texts. There is a sermon for Easter Day with the text, "Ye are dead;" and the sermon is a most striking one; so also is the one on Infallibility, in which, after expatiating on the text, "And they shall be all taught of God," the preacher said, "Let us not be ashamed of, but glory in, our Protestantism. Let us make no compromise with the lying vanities of Sacerdotalism, whether its home be Italy or England. But rather say boldly, say strongly, yet say it in charity—I want no chair of human authority, no voice of human infallibility, I want no person sitting in God's temple, calling himself whether Christ's vicar or God's vicegerent—these things are all foreign, all repugnant to the spirit of my Christianity—these things are so many veils and barriers between me and my God—my Church is not poor because she has them not—it would be her shame, her deformity if

she thought she had them. It is written in the prophets—and Christ, the Lord of the prophets, condescends to endorse the saying, ‘In Gospel days they shall be all taught of God.’ I will not disparage, I will not part with, I will not explain away the saying which tells me that my own soul is under Christ, the Priest of my sanctuary; and that when, in faith and prayer, I draw nigh to God, I do so in virtue of the one Sacrifice once offered, and in the power of the Holy Ghost given to all who ask Him.” These words, uttered twenty years ago, are just as suitable now; and so are the rest in this volume, because they deal with subjects of everlasting importance. The next volume bears the superscription *Sundays in the Temple* (3), and consists of twelve sermons preached between Advent, 1870, and Whitsunday, 1871. It is somewhat strange that the title of the Whitsunday sermon should be the “Resurrection;” but it is very suitable, as it is on the subject of the prophet Ezekiel’s vision of the dry bones. The sermon on Inspiration in this volume is remarkable; and this is Dr. Vaughan’s testimony on this subject, “No testimony was ever stronger or more comprehensive to the inspiration of the Bible. . . . (i.e., than St. Peter’s testimony, 2 Pet. i. 19, which is the text). Every part of it, St. Peter declares, is due, not to man, but to God. Every part of it has its Divine purpose, and every writer his Divine mission. And he speaks, we remember, of the first half of the Bible. . . . We fearlessly claim for the entire volume that which St. Peter writes of the half.” But Dr. Vaughan does not advocate the theory of verbal inspiration; he calls that a theory “as dangerous as it is gratuitous.” And he truly says that “God is not honoured by those extravagances of a well-meaning piety, which would force upon the faith of the Church theories repugnant to her reason.” The volume which appears to come next in chronological order is that entitled *The Presence of God in His Temple* (4), consisting of fifteen sermons preached between November, 1871, and June, 1872. These do not contain anything that call for especial remark beyond that depth and earnestness which makes all the Dean’s sayings and writings so valuable. The volume entitled *Christ the Light of the World* (5), and that which sets forth the *Characteristics of Christ’s Teaching* (6), contain discourses extremely suitable for private reading. In *Plain Words on Christian Living* (7) will be found discourses on the Christian use of food, of society, of domestic service, and other interesting matters. *Earnest Words for Earnest Men* (8) is a volume of addresses showing the relation of the Gospel to the Poor, to the

Young, the Busy, the Doubting, the Mourner, and the Sinful. Part II. is entitled the Pilgrimage, and there is a supplementary portion of five discourses on various topics. Our notice shall conclude with the mention of the volume entitled the *Voices of the Prophets* (9), which a note tells us was the completion of a set published in order to raise funds for rebuilding the Dean's Parochial Schools. There is an introduction on the understanding of Scripture in general; and then six discourses on Faith, which we think were published in *Good Words*; five on Prayer; and five on Human Life. All are interesting, each is valuable. The generation that listened to these sermons is now passing away—unless, indeed, they are reproduced in present-day pulpits, which would not be a bad thing—with due acknowledgment. We may, therefore, hope that this edition will renew the interest that must have been taken in them, and trust that the good they have done will be continued for many a generation to come.

A Key to the Psalms (10). It is many a day since we have seen a more suggestive book than this on purely Scriptural lines. We say advisedly "suggestive," for much as it gives of what is fresh, important, and intensely interesting to the true student of the Word, that which it *suggests* to him is even more. To many it will open a new world of beauty, force, and exegetical comment quite in addition to that which it actually displays, not in the Psalms only, but also in all the other poetical books of the Old Testament, and in many of the so-called prose books of the New, which, on examination, will be found to be largely very literal Greek translations of what in their essential structure are plainly Hebrew or Syro-Chaldaic poems. The work is worthy of truly evangelical, open-minded, and original Biblical scholars; and such certainly are its author, the late Rev. Thomas Boys, M.A., and its editor, the Rev. E. W. Bullinger, D.D. The second title of the book explains its contents, *A tabular arrangement by which the Psalms are exhibited to the eye according to a general rule of composition prevailing in the Holy Scripture*. In a word, this "general rule of composition" is shown to be a most elaborate parallelism of thought or construction throughout a whole poem, either by way of alternation, introversion, or a combination of both. Rabbi Azariah De Rossi and Lowth (who learnt this from the erudite Jew) applied these principles to verses or short passages of Scripture; and Bishop Jebb carried the study further by showing in his *Sacred Literature* that

parallelism was to be found in a number of related lines in paragraphs or stanzas. But it was reserved for Thomas Boys to discover and develop the full extent to which the inspired writers have carried this principle, which, as we have long known, is of the very essence of Hebrew poetry. In 1824, Mr. Boys *Tactica Sacra* appeared, in which he shows that the two Epistles to the Thessalonians, the second Epistle of Peter, and the Epistle to Philemon are thus arranged; and from unpublished notes in his Greek Testament, now in Dr. Bullinger's possession, it appears that he has displayed the same remarkable arrangement in the Epistle to the Hebrews. Nothing could be a better proof of inspiration than the exceedingly beautiful, elaborate, and complicated structure thus shown in Peter's second Letter, when we remember that Luke tells us he was perceived to be "unlearned and ignorant" (Acts iv. 13). In 1825, Mr. Boys, in his *Key to the Book of Psalms*, gave some sixteen examples. He lived, however, to complete the whole book, and in this posthumous work we have what he calls *Correspondence* shown in each of the hundred and fifty Psalms which compose the five books. Dr. Bullinger has added many valuable notes, and several other suggested arrangements or rearrangements; whilst his appendix, showing how the five books of Psalms in their serial order answer respectively to the exact character of the five books of Moses, is as remarkable and interesting as anything in the work. We propose to give next year examples at length of these instances of *Correspondence* in articles by the Rev. James Neil, M.A., on *Hebrew Poetry*.

The Story of Daniel (11) has deservedly reached its fourth edition. Throughout the volume the author shows his firm conviction that the historical part of the Book of Daniel is what it professes to be—a biography of the great Hebrew of the age. The story is told in plain English, in a picturesque style, and in a fascinating manner. An admirable example of the way in which biblical biography should be written.

By C. J. Vaughan, D.D. (1) *Last Words at Doncaster*; (2) *Half-hours in the Temple Church*; (3) *Sundays in the Temple*; (4) *The Presence of God in His Temple*; (5) *Christ the Light of the World*; (6) *Characteristics of Christ's Teaching*; (7) *Plain Words on Christian Living*; (8) *Earnest Words for Earnest Men*; (9) *Voices of the Prophets*. London: Hutchinsons & Co., Paternoster Row.

(10) *A Key to the Psalms*. By the late Rev. Thomas Boys, M.A. Edited, with Introduction, Notes, and an Appendix on the structure of the Psalms as a whole, by Rev. E. W. Bullinger, D.D. Published by the Editor, at 7, St. Paul's Churchyard. 1890.

(11) *The Story of Daniel: His Life and Times*. By P. Hay Hunter. London & Edinburgh: Oliphant, Anderson & Ferrier.

Mr. Booth's *In Darkest England, and the Way out* (1) is a work in Remedy. which the head of the Salvation Army details the method by which he proposes to do away with a great deal of the destitution that exists among the lower orders in this country. Every one will see at once whence the title of the work is derived; and most people, too, will easily guess who the "friend" is whose help was employed to put the subject-matter of the book into a form which should be the most striking to the public mind. We cannot help thinking that so serious a matter would have been better dealt with in a less sensational way. But then, "General" Booth is nothing if not sensational: all his works of charity and otherwise are done at the banging of a big drum. The book is divided into two parts, the first is entitled "Darkness," and describes the various classes of miserable beings whom it is proposed to assist and take care of. "The denizens in Darkest England, for whom I appeal," says the author, "are (1) those who, having no capital or income of their own, would in a month be dead from sheer starvation were they exclusively dependent upon the money earned by their own work; and (2) those who by their utmost exertions are unable to attain the regulation allowance of food which the law prescribes as indispensable, even for the worst of criminals." He says, "it would be Utopian in our present social arrangements to dream of attaining for every honest Englishman a gaol standard of all the necessaries of life. Some time, perhaps, we may venture to hope that every honest worker on English soil will always be as warmly clad, as healthily housed, and as regularly fed as our criminal convicts, but that is not yet." Meanwhile, it is claimed that a very humble standard, if realized, would solve the worst problems of modern society. This standard is that of the London cab-horse, which is helped up if it falls down, and has a shelter for the night, food for its stomach, and work allotted to it by which it can earn its corn. It is estimated that Darkest England has a population equal to that of Scotland. "Three million men, women, and children, a vast despairing multitude, in a condition nominally free, but really enslaved: these it is whom we have to save;" and undoubtedly, if it can be done, it ought to be done. Such destitution, with its concomitants of vice and misery, are undoubtedly a detriment and a disgrace; nay, more, it is a deadly disease eating into the vitals of the body politic; and it ought to be attacked, and, if possible, cured; and that without delay. Details are given with regard to the homeless, the vicious,

the criminals, and the children, but nothing particularly new is brought forward. Every now and then a "bitter cry" goes up, the ears of all ranks are startled, the minds of even the most thoughtless are affected, everybody says how dreadful it all is; and then matters sink down pretty much as before. But we believe that if a remedy can be suggested, the funds and the power to attempt it will not be wanting. What is "General" Booth's remedy? This is detailed in Part II., entitled "Deliverance;" and certainly it contains nothing particularly new, nor anything very heroic. A crusade, according to our author, is even now being made into the "slums," and from there recruits are to be drawn into a "City Colony," where shelter and food will be found, on the condition of a certain amount of work done. Then there is proposed the "Country Colony," where those drafted from the City Colony, and others too, will be set to all sorts of farm work, besides building, carpentering, tailoring, shoemaking, &c. Lastly, there is the "Colony over the Sea," where those who have stood the previous tests will be taken and really started again in an honest and a hopeful career. The plan seems feasible; and "General" Booth claims that he has in the Salvation Army an organization fully and adequately prepared to undertake it; and he is willing to undertake it for the small sum of £100,000 down, and £30,000 per annum afterwards. Whether there are enough charitably disposed people to give the sums required remains to be seen, and whether they ought to be entrusted to an organization practically irresponsible is a matter for consideration. "General" Booth most assuredly does not suffer from any lack of belief in himself; and one would think he also quite ignores the ravages of time, for not a word is said as to how this scheme is to be perpetuated, or how long a time it is thought will elapse before its beneficent work will be done. The Salvation Army is now actuated by one personality, who cannot last for many years; and what will become of it when its "General" dies it is impossible to foretell. Meanwhile, we wish him many years of useful continuance; and if some guarantees are afforded, we shall hope to see the scheme put into action; for even if it fail, it will possibly set people's mind to work to find out why it did not succeed; and if it succeed, as we trust it may succeed, it will undoubtedly be extended, and, if need be, amended, until the evil it grapples with shall be overcome. One thing is clear, that Society cannot much longer go on as it is. Even let us admit and believe, with "General" Booth's namesake, Mr. C. Booth, that the condition

of the East End poor is improving, still there are far too many glaring defects remaining; and more energy, more money, more influence, must be brought to bear upon the task of their extinction. "General" Booth, in an appendix, gives some interesting information as to the treatment of pauperism in Bavaria by Count Rumford; and on the co-operative experiment at Ralahine; and, as his general manner is, he tells his readers how they may subscribe. The work is well printed and got up, though it is disfigured by a frontispiece which does more honour to the heart than to the head of its inventor; and the head of the Salvation Army is apparently his own publisher.

Miscellaneous. *For Christ and City* (2) is a volume of discourses delivered in Wavertree Parish, of which the author is Incumbent, and of other addresses. Mr. Stubbs is well known as an authority on social matters, and this volume will show that his reputation in this respect has a sound basis. The problems treated of are of great importance, and the suggestions towards their solution are valuable. One of the chapters contains a paper read before the Liverpool Clerical Society on Socialism, and was suggested by the Lambeth Encyclical on the same subject. Historically it goes over the subject in a rapid way from the introduction of the water-wheel into Europe down to the latest labour-saving invention; but its main interest lies in its moral teaching, which aims to show that "*not charity, but social duty*" is the truth which lies at the heart of this whole problem. "There *is*," says Mr. Stubbs, "a Christian ideal of society. There *is* a Christian philosophy of civilization;" and he suggests certain articles of a social creed, which, we expect, would give rise to much discussion. The whole paper, however, is interesting and instructive. The idea that wealth is wages paid beforehand for work to be done for the good of society, and that the rich are bound to earn their riches, is a new idea, which, we imagine, will hardly find general acceptance. However, "finally," says Mr. Stubbs, "it is not the equalization of property that is needed, but its moralization," which is perfectly true. But he adds, "It is not for me to say how you shall set about applying those principles to practical business life." There is the rub.

(1) *In Darkest England, and the Way Out.* By General Booth. London: International Headquarters of the Salvation Army. Price 3s. 6d.

(2) *For Christ and City.* By C. W. Stubbs, M.A. London: Macmillan & Co. 1890.

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