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ORDINARY MEETING, MARCH 16, 1868.

THE REV. WALTER MITCHELL, M.A., VICE-PRESIDENT, IN THE CHAIR.

The Minutes of the last Meeting were read and confirmed.

The Secretary announced that the following Books had been presented to the Institute:—

A Complete Course of Biblical and Theological Instruction, in accordance with the principles of the United Church of England and Ireland. Vols. II. and III. By the Rev. Joseph Baylee, D.D.

From the Author.

The Rev. A. DE LA MARE then read the following paper:-

ON THEOLOGY AS A SCIENCE. By The Rev. A. De La Mare, M.A., Mem. Vict. Inst.

It will, I presume, be conceded by all, that, on the hypothesis that Theology, as it is commonly accepted among us, is true, its importance and its claims can scarcely be exaggerated. Dealing with truths confessedly beyond the grasp of unaided reason, which not even the imaginative faculty in man would seem to have been equal to originate, and which, when accepted, his most laboured processes fail to reach; truths beyond the sphere of ordinary observation and experiment—supernatural, limitless, essential; truths, moreover, which constitute the basis of all his varied relations with the high, the holy, the infinite One; by which also his inner being, his life of lofty aspirations and noble promise, is moulded; theological truth, if established, is surely beyond all estimate as truth—truth pure and simple; and its practical bearing and issues priceless, peerless.

Again, if will, I presume, be conceded by all, on the hypothesis that Theology is a science properly so called, that it must take rank among other sciences corresponding to the rank which the truths of Theology hold amongst other truths; and, if so, then that Theological science, its importance and vol. III.

its claims, can scarcely be exaggerated; that for scope it stands without a rival, resting for its basis on Deity, and in its issues comprehending the entire human family; and for effectual working it influences the life spiritual as well as natural, whether in its physical, intellectual, or moral aspect, and pronounces judicially the destiny of every human being in its damnatory or exculpatory utterances, and each for eternity.

I have said above, Theology as it is commonly accepted among us; for we cannot ignore the fact that, whether as regards its component truths or their systematic treatment, Theology is by some altogether rejected, either as a puerility which the intellectual manhood of our race has outgrown, or as an imposture which priestcraft and its abettors wield either for self-aggrandisement, or to trammel the legitimate exercise of free thought: a simple absurdity in the estimate of the one class—a dishonesty, and therefore a badge of disgrace, in the view of the other. To write for men taking up either of these positions, would obviously be impertinent. We occupy no common ground, and could, therefore, have no room for argument. The Atheist, repudiating the very existence of a God, not only could not accept, but must complacently smile at a thesis which, from first to last, recognizes the Deity whom he ignores; and the Infidel, whose loftiest idea of the Godhead is of some artificer on a mighty scale, whose laboratory has been submitted to our inspection and enjoyment, perchance to the emendations of our higher intelligence, would equally reject an argument based on the utterances of One whom he acknowledges only in creation, and even there without, as it seems to me, pushing his admission to its logical and legiti-This paper, then, based, as of necessity mate consequences. it is, on the acknowledgment of a living God-for to write on Theology without recognizing a God would be as absurd as to treat of geology without recognizing our planet; and, moreover, not only on the acknowledgment of a God, but of the God of Theology, the God which Theology sets forth; and, therefore, on the acknowledgment of the books which are esteemed as sacred amongst us, the inspired revelation of the Divine will—for, again, to treat of Theology and ignore its records would be as senseless as to treat of geology and pass by the "Testimony of the Rocks" and the "Sermons in Stones" of that large and deeply interesting science:-this paper, as it is not written for, so it can expect to find no favour with, either the Atheist or the Infidel; but to all in whom Atheism or Infidelity is not a foregone conclusion, who accept the Holy Scriptures as the Word of God (the distinctive basis of membership of the Victoria Institute), it is submitted, not as an exhaustive, but rather as a suggestive tractate, tentative rather than complete, and seeks to awaken a dispassionate consideration of its subject, assuredly well worthy of being calmly and philosophically weighed by men anxious to discriminate between the true and the false; to give to all true science its legitimate status, and eliminate whatever has only the name or semblance of science, by whomsoever installed, and how widely soever retained within the honourable and charmed circle.

I will add one more preliminary remark, with more especial reference to the mere Theist. Surely, once admit the existence of a personal God-not an abstraction, not matter, not nature, not law, not force—a living personal God, and His utterances, however conveyed, by seer or by vision, by audible voice or inward illumination, by a spiritual afflatus from without or a spiritual witness within,—His utterances, if only conveyed in a mode worthy of Himself and worthy of the ends to be compassed, ought to be implicitly received. And this, both on rational and moral grounds. For the very notion of a personal God involves the idea of perfection; and perfection in Deity is nothing less than infinite perfection. Is it, then, conceivable that the Deity should act towards the works of His hands as no mere impotent and fallible artificer would act towards his perishing products—make them, and then fling them unheeded to be a sport to every passing and destructive agent? Is this conceivable of any intelligent being? Does the parent neglect, forsake, disown his offspring, cast him upon the world, expose him to the world's ill, and all without one warning word, one directing maxim? utterly inconceivable, then, is all this on the part of a personal, living, perfect God. Better, methinks, ignore His existence than degrade His character. Better not believe that there exists a God of perfect attributes, perfect in His works and in His ways, than believe that He is, and yet heeds not, hath never spoken to, deserts His own intelligent creature. A God less reasonable in administration than the rudest artisan! more heartless than many of the most abandoned of our race, yea, of the very abjects!

And now we approach our immediate subject—Theology as a science. And at the outset I feel deeply impressed that this paper cannot adequately or even approximately do justice to it. A large and comprehensive subject, sufficiently treated, demands a large and comprehensive intellect and corresponding scholarship—very much larger than I venture to lay claim to. I aspire, then, to no more than the lowliest pioneer work,

to draw attention to the theme, happy if in its treatment I do not damage it in the estimation of those more competent to discuss it than myself.

It is obvious that Theology comes into more or less contact with other and distinct branches of science; and although she spurns not, neither does she court the homage of any. Thus, e.g., Metaphysical science not only recognizes, but, to a very considerable extent, identifies itself with Theology. For without retaining the divisions of the early schools, in the enumerations of Leibnitz, and under the title of Theodicy, she specifically enumerates Metaphysical Theology. Now, with an unfeigned admiration of Metaphysics, especially when loyal to the highest department of truth, I know not whether Theology has gained or suffered most by the alliance; for if some Metaphysicians of more chastened spirit and higher aims have honoured both their science and themselves by legitimately applying it to and vindicating the claims of Theology, others, alas, by murky mystifications, have only obscured what was before plain to all but themselves, and have overlaid with philosophical difficulties that which we doubt not they had purposed to elucidate. But it is not with mental science alone that Theology comes into contact, either of agreement or conflict. Propounding a cosmogony of its own, irrespective of general physics, and laying claim to an antecedent authority, Theology cannot but have a bearing upon the natural sciences, as astronomy, geology, mineralogy; nor be without relation to the experimental and applied branches, chemistry, heat, electricity, magnetism. The antagonism with astronomy into which she was once forced is a matter of history, though happily now a thing of the past; and the hostility presented by geology, perhaps never more rife than in this our day, is only too painfully paraded before our eyes. We do not deprecate this Theology does not; and the Theological student evinces an unworthy distrust of his science when he in any measure shrinks from such attacks. I believe that every investigation fairly conducted will ultimately advance the consolidation of every separate branch of human science into one grand and consistent total; and that the truth so arrived at will be in full harmony with divine truth, one essential verity. And, further, I believe that to this end Theology will have nothing to concede and little to modify: merely to put aside interpretations which never were her own. and so eliminate every element of disagreement.

In considering Theology as a science, it is needful before proceeding further to note the kind of science to which it belongs. The classification which recognizes the exact sciences, whether pure or mixed, as based upon necessary truth and

admitting of an exact and rigid demonstration, implies that there are inexact branches, resting on truths of less essential force and incapable of rigid demonstration, and yet sciences. And the further classification which admits the distribution into natural and experimental sciences, resting respectively as a basis upon observed or tested phenomena, implies that branches of truth may be accepted as real sciences, though incomplete—incomplete only to the extent to which the observations or experiments have not extended. Now, if these be sound data, abiding by these it would seem sufficient to indicate in this paper that Theology satisfies any one, even the lowest of these conditions; such, however, would not satisfy my purpose, and I therefore at once avow, that I regard Theology as not only vindicating to itself the first rank, but as fulfilling the conditions of each department inclusive; in its separate parts and aspects presenting to us both an exact and an experimental science—exact as based upon necessary truths of divine revelation, necessary though capable of being very variously enunciated; and experimental as sustained by allsufficient phenomena, whether of observation or experiment. Nor is such a position suicidal, nor such the vicious course of proving too much. Of all sciences, that which is perhaps accounted the most firmly established is astronomy, and what is the basis of astronomy but a corresponding amalgam—in part necessary truth, in part observation, and in part experiment? and in each, I venture to affirm, of a lower grade respectively than those on which Theology is established.

I. Theology as an exact science.—In this branch of my subject I purpose to ignore all non-essential subdivisions. I shall regard neither "positive" nor "popular" Theology, so called; neither "exegetical" nor "historical," as such; but comprehending whatever, in both natural and revealed religion, makes for my purpose, and blending all systematically—the teachings of the Deity in both His work and word—endeavour to evolve, or at least indicate, the sources of a true

philosophy.

Natural Theology, by the testimony of an inspired writer, presents to the whole human family an indelible truth—the Being and patent attributes of the Deity: "For the invisible things of Him from the creation of the world are clearly seen, being understood by the things that are made, even His eternal power and Godhead," or "divinity"—a more systematic enunciation only of the utterance of the Psalmist, "The heavens declare the glory [honour] of God, and the firmament [expansion] showeth His handy work." Now, the "divinity" of the Creator being recognized, and also His "power" and

"honour," sufficient ground is afforded for the theory of Godhead which proclaims perfection of character; for when the operations and issues are perfect, and redound to the honour of the artificer, these, in themselves and so far, satisfy the requirements of thought for a perfect being, and, as a consequence, suggest a perfect artificer—God. But a perfect being will, amongst other perfections, possess the attribute of perfect truth, and consequently his every utterance will partake of this attribute, and be perfect truth. And this I take to be the very highest form of necessary truth; for being perfect, it is not only necessary so far as it reaches, but its grasp is perfect; it is the full utterance in respect of that which it utters. And hence the truths of revelation are essentially necessary truths. They might be conveyed in varying expressions more or less complex, but the truth would remain the same—the same in kind, in extent, in force. A system, therefore, grounded on Divine revelation is an exact system; such a science an exact science—I venture to think the exact science —not only that which has foundations, but whose foundations are sure.

The foregoing conclusion is, I think, fortified by considering the negative side of the argument. The sacred books give us definitions not only of what God is, but of what He is not; and with reference to this very attribute of truth, we have perhaps the plainest declaration of all, "God that cannot lie." If, then, the definition that God is "truth" have a coordinate definition, "God that cannot lie," not only is His word truth, but truth without any admixture—the perfect embodiment of necessary truth.

And now, as to the mode of using the Sacred Books in this matter. I know no more safe, no more simple method of establishing a science, where it is applicable, than that adopted in certain branches of mathematics. The method, e.g., in geometry, which, in order to make the whole subject thoroughly intelligible, exactly and positively explains its several terms, and provides a working apparatus, by certain concessions which it demands, and the enunciation of certain patent verities which it allows none to question or ignore—in a word, a system of definitions, postulates, and axioms, sufficient alike for its several operations and processes, and for its various modes of demonstration. And in this manner I purpose to proceed here.

Now, the definitions of Theology appear to me to lie in all those almost numberless and authoritative sayings which pronounce upon the nature and character of persons and things. Thus, concerning the Godhead, we read: "God is,"

that is, exists; "God is a spirit;" "the Lord our God [Gods] is one God;" "the Lord God omnipotent reigneth." Again, as belonging to this essential existence—this absolute entity. we read of some thirty or forty attributes, or properties, which satisfy to the full every requirement of an exact defini-Thus also, concerning man, we read that he is a creature -"God created man,"—that he is a complex creature, compounded of "body," "soul," and "spirit"—a creature possessed of certain powers, both physiological and psychological—"understanding, will, affections, conscience,"—and specifically that he is a sinning creature, but capable of renewal in himself and of restoration to his forfeited inheritance. And all this in definitive terms, language as positive as it is plain. Thus also, as concerning the great end of all being, "The Lord hath made all things for Himself;" the relation between the Creator and the creature, "By grace are ve saved;" the present and future states of the latter, and the whole bearing of the dispensations and processes by which the ultimate issue is to be attained. In a word, all the great points which it is the purpose of Theology to establish, rest on declarations which, for clearness and force, are second to none that in other branches of science, even the most exact, are accepted as definitions, and acted upon without hesitation.

Next, the postulates of Theology are, I think, to be found in such positions as the following, and which are not only congruous with the principles and utterances of the revelation, and directly flow from them, but also with all right reason and lawful concession. Let it be granted that the Deity, by His attributes of omnipotence and benevolence—both deductions of mere natural Theology—is able and willing to reveal Himself to His creatures; let it be granted that the revelation, in order to its being available to such creatures. must, in form and matter, be adapted to their receptive capacity; and further, let it be granted that such revelation has been given; and we have all we need for elaborating a system of Theological truth, wanting no one element of an exact science. Or, to express our postulates subjectively: granted that man can receive a revelation from God; granted that, if received, it will be such an one as he can use; and, once more, granted that he possesses this; and I think I am justified in saying that we have, so far, an apparatus sufficient to establish all which this paper proposes.

Once more as to axioms. I find the Sacred Books abounding in truths not only of axiomatic form, but, to me, of unquestionable axiomatic force. For example, "He that cometh to God must believe that He is [exists];" contrariety

or defect herein involving a manifest absurdity. Again, "God is a spirit, and they that worship Him must worship Him in spirit;" surely, a self-evident truth—the highest to receive the highest homage, as man is more honoured who receives honour of his fellows than of inferior natures, and most honoured who receives it of the most honourable. And yet again, "the spirit witnesseth with our spirit," as essential a verity in true Theology, as in mental philosophy, that intellect acts upon intellect, or, in moral philosophy, that the moral sense vibrates to the touch of moral inspiration.

Now, in these enumerations, the suggested definitions, postulates, and axioms of a Theological science, I beg to be distinctly understood as submitting them, not as the only, nor perhaps as the highest or best examples that could be adduced, but merely as indicating the kind of apparatus at hand, and the exhaustless mine whence it can, almost without limit, be evolved; and with such materials, these and kindred data, it is quite possible to build up a system of Theology in full accordance with scientific processes and modes of thought—in one word, an exact science.

But here, perhaps, demurrers may be put in, or even protests entered, which it will be well at once to meet. I may be charged with (1) employing an apparatus in itself defective or inexact, or (2) of applying it in a case wherein it is inadmissible, or (3) of importing into a scientific investigation an element or elements which science ignores or repudiates. Let me devote a few remarks to each of these points. And, first, as to the defective or inexact character of the apparatus. I presume that every scientific man is content to accept mathematical science upon its merits; that he admits, in any given branch, that the basis suffices for the superstructure. Thus, as the branch which I have had more especially in view in this paper, that the definitions, axioms, and postulates of geometry are scientific, or at least are neither so defective nor inexact as to endanger the claim of geometry to be a legitimate science. so, I ask what is the first definition of plane geometry, the initial letter of the scientific alphabet, but a bare idea? and this idea, moreover, defined negatively, and only negatively. "A point is that which hath no parts and no magnitude." In other words, the fundamental definition—so exact a description as to leave no room to confound the thing defined with any other thing—merely tells us what that thing has not. We call it a point, but it is exactly nothing; and if we seek to locate it, or to present it to the eye, its very location overleaps, and its visibility is destructive of the definition itself. And if we pass to other branches or to general analysis, the same

weakness, if it be weakness, is constantly presenting itself. Our sense of exactitude is not quite borne out by such algebraic formulæ as the following: something multiplied by nothing is nothing; something divided by nothing is infinite; and nothing divided by nothing is almost anything. And yet these are the utterances of pure science. Or, to glance at higher branches, the differential or integral calculus, not only the calculi themselves, but some of their most vaunted theorems, rest on principles and are couched in language barely as intelligible as the foregoing, and far more conflicting. from the region of pure we pass to mixed mathematics, noting the necessary connection which subsists between them, and the dependence, so far, of the latter upon the former, and only glance, for instance, at the laws of motion, and how these laws enter into and modify, if they do not determine, some of the highest problems of perhaps our noblest, and certainly our most exact, of all physical sciences, astronomy, surely the weakness, if it be weakness, does not vanish. And yet scientific men accept mathematical processes and conclusions, and consider the various propositions proved. Now, if a weakness or obscurity, or even the absence of absolute exactness, be enough whereon to reject a definition, and the fault of either kind so vitiate such definition that the process depending upon it fails,—and the process failing the conclusion is untenable, and if, further, the grafting such conclusions into some kindred science or branch, this latter, too, must be eliminated; and, pursuing the same course, every branch resting upon it directly or indirectly, must be rejected, it would seem that mathematical science, with its vast and magnificent coil of connected sciences, is like a cone resting upon its apex, in danger of being overturned, and the whole series, with all else of kindred uselessness, swept into the limbo of discarded systems. But I have no fear of this result. The definition and expressions in question suffice for the purposes to which they are applied, and are accounted valid for the processes in which they find place; and if this be so—if a fundamental definition, which simply tells us what the thing defined is not, suffice, as it does. where we find it, what defect or want of exactitude impairs the truths which I have ventured to instance as the kind of definitions which theological science offers? "A point is that which hath no parts, or which hath no magnitude." Granted: but who can exhibit it? who perceive it? Side by side with this, and in the light of the created universe, read "God is;" and where is it not depicted, and who sees it not? "A line is length without breadth," and "a straight line is that which lies evenly between its extreme points." Granted; but who

ever drew either the one or the other? Given the fairest conceivable surface and the finest conceivable instrument, and who needs the aid of the microscope to detect breadth as well as length, and endless divergences to the right hand and the left? Side by side with these, and in the light of the same created universe, its history and its course, read "the Lord God omnipotent reigneth;" and when has this ever been disproved, and what single witness really brings it into doubt? For myself, I am not prepared to give up even the dicta of mathematics, sufficient for mental processes, even though contradicting the senses; and the dicta of our Sacred Books I hold to be utterly irrefragable, sufficing for both mental and spiritual processes, though materialism would ignore and rationalism emasculate them.

Again, I may be charged with applying this apparatus in a case where it is inadmissible. We know where it does avail: in the instance already given, geometry. And we know how far it avails, to absolute demonstration—demonstration according to the requirements in each given case, direct or indirect. Now, accepting the necessity for demonstration herein of one or another form, either such evidence of the reason as establishes the proposition beyond doubt, or as clearly exhibits the contrary proposition to be untenable and absurd, surely there is no unsuitability of the process or apparatus to the subject. It is admitted by all who stop short of actual Atheism, that the created universe exhibits positive demonstration of the existence of the Deity, and therefore so far the ground is secure. And this secured, the proposition assumes a different character: it passes from exact science as to argument, and from experimental science as to observed phenomena, into purely ethical science—ethics, in the largest sense, as teaching man not only his relation to his fellows—social duties generally —but his especial relation to his Creator, and the duties growing out of the record which his Creator has given him. Now, if our process and apparatus hold in pure mathematics-mental science,—and if it hold in ethics proper, is it to be excluded from and held to be inapplicable to the purest and highest of all mental science, and the broadest and most comprehensive ethics, both bound up in Theology? There is not, perhaps, a term in the whole vocabulary of science more prostituted than the word proof. Too often the merest hypothesis, the most slipshod generalization, even an individual dictum passes current for proof. Not that really scientific men are thus deluded, or delude themselves; but such counterfeits are allowed to circulate (alas! that they should ever bear the imprimatur of honoured names), and that for which science should

reserve its highest niche, PROOF, is supplanted by a delusion or a dream. In the application of the geometrical apparatus, it would be no difficult though an ungracious task to point out almost more than equivocal gaps; e.g., the last axiom, a distinct proposition rather than an axiom; and the allegation of coincident points, or, divesting it of scientific verbiage, coincident nothings. But the application of our theological apparatus involves no such drawbacks: the data are the utterances of unmixed truth, and the processes, if only logically conducted, are superior to either human weakness or alloy.

Once more, I may be charged with importing into a scientific investigation an element or elements which science ignores or The two points to which I refer are, 1st, the repudiates. recognition of spiritual truth as supplemental to physical and moral truth; and, 2ndly, the medium of its reception, faith, as the complement of the faculties by which we take cognizance of these. The belief in spiritual being is, and has ever been, world-wide. Our Sacred Books announce "that the things which are seen were not made of things which do appear;" and this patent truth is probably the basis of this wide-spread and deep-rooted conviction. Hence the Eons of the Platonic philosophy; hence the various myths and demiurgic theories which have from time to time found favour. Further, the human mind has ever attributed to such spiritual existences superhuman powers: to the good and true, a surpassing truth and goodness; to the false and malignant, an intensification of evil. Now, with this universal recognition of spiritual being, whether by tradition or ratiocination, by personal intuition or external impress, we stay not to inquire; but this recognition being unquestionable, is it philosophical to ignore all spiritual being in scientific investigations which may involve or come into contact with this notion? Again, spiritual existence being conceded, is it philosophical to ignore its operations, especially in the workings of truth, eclipsing, if authentic, all human verities in scope and grasp? And, once more, if any system of truth be extant, claiming to be the revelations of the Eternal and Infinite Spirit, having every stamp, external and internal, of its parentage, can this be safely ignored whenever the student seeks for the whole truth in things never so remotely bearing upon it? Can it, without signal failure, in things bound up with and depending upon it? Now, we believe that we have this record, and how do we propose to use it? Primarily, as we use all truth, systematically, and in accordance with both literary and scientific practice; and, ultimately, according to its own declared canon of interpretation, withal eminently scientific, "comparing spiritual

things with spiritual." And here we are indirectly but substantially supported by our adopted type, geometry. ignore the idea of spiritual existence and operation? Why brand these as unscientific and inadmissible? Is it because we can form no adequate notion of spirit or of its modes of operation? that it is impalpable, not cognizable by the senses. reducible to no law? And what more adequate idea can we form of infinity, infinite space, and operations including the application of infinity? Is this one iota more palpable, more cognizable by the senses, more easily reducible to law—the laws which apply to finite things? And yet the recognition of infinity underlies the whole structure of geometry, not only in its preliminaries but its processes. Thus, "parallel straight lines are such as are in the same plane, and which, being produced ever so far both ways, do not meet." Ever so far, that is indefinitely, infinitely. Thus, in the postulates, the working implements, things demanded as capable of being done, we have "that a terminated straight line may be produced to any length in a straight line;" to any length, that is infinity. And, again, "a circle may be described from any centre, at any distance from that centre;" at any distance, that is, as all other distances, so an *infinite* distance! whatever that may be. Whilst one of the early problems demands the use of a line of unlimited length, i.e. an infinite line. If, then, the infinite be admissible in strict science, why not the spiritual Especially when the infinite is cognizable only in Theology? by the intellect; the spiritual, in at least a vast portion of the human family, by the inner and deeper consciousness as well as the intellect. This concentration of every evidential element alone seems to meet the requirements of the case. By this only does the great problem seem capable of being solved; by this only can the inwrought aspirations of man be satisfied. That some ignore and scout, what others hold with the firmest grasp, is not confined to Theology or even pure science.

As regards the medium, faith, I would simply suggest that, wholly irrespective of its being the accredited medium, it is the necessary one, and, however disclaimed, it enters into almost every branch of known science. It has been well said that "faith is as necessary a condition of mind in natural as in revealed religion, and in philosophy as in both. He who goes beyond phenomena and speculates upon being itself, must assert principles from which a sarcastic criticism can deduce contradictions manifold, or he must believe nothing at all beyond his own existence and perception. Even atheism and the coarsest materialism have their hypotheses and faith, and therefore materials for credulity." Now, every science claims

to prescribe its modus operandi, and Theology, in its higher and more spiritual portions, enjoins faith; on the broad and intelligible principle that "the things of the spirit are only spiritually discerned." And are we in all this to be twitted as dealing in arcana? as appealing only to the initiated? and our system to be branded as a mere shibboleth? If so, surely "arcana," in the least desirable sense of the term, attach not to Theology alone; neither do theological hypotheses alone indulge in the marvellous or claim passport by a watchword. Let, then, each and every science be fully met and fairly dealt with; let all foregone conclusions be thrust aside, and every pretension stand or fall on its own merits. There are vigorous intellects whose aspirations go to and fro through the universe. There are intellects of equal calibre whose aspirations pierce beyond the universe; own no limit, material or mental; and embrace things spiritual as well as cosmical. Let not, then, on the one hand, the supercilious smile which would charge weakness; nor, on the other, the repellent frown which speaks distrust, find place here. The votary of physical science may often marvel at not only dullards but the astute, who fail to entertain or appreciate his subject; and the theologian may often marvel at the self-imposed limit by which, in turn, the man of physical science fails to entertain or appreciate his branch. Let only both, each and all, as confrères and compeers, strive in honourable rivalry to draw forth truth, and assuredly, in the end, no pseudo-science will stand, and no real science lose its fitting place.

II. And now I approach the consideration of Theology in its less exact aspect, as a mixed science, presenting phenomena both of observation and experiment; and I purpose to treat this part of my subject under the twofold division thus suggested. In the broad field of observation, the first place must be conceded to Natural Theology. And here I should feel constrained to consider this branch in detail, and more particularly some of its great leading problems, did I not remember that in papers already in our Journal of Transactions, and especially in the inaugural address of our Vice-President, Mr. Mitchell, the subject, so far as I have occasion to employ it, has been most ably and conclusively treated. All I ask is, that Natural Theology be accepted as proclaiming a personal God-not deified matter, not deified force, not deified law ;not Pantheism, with its visible aggregate, nor Polytheism, with its invisible legions; -not Positivism, with its deified abstract Humanity, its unvarying inflexible course of events; but a personal God, ruling over, not restrained by the observed order of things, the one great architect of all visible design;

the one great legislator of all ascertained laws; the one great executive of universal sway. And to arrive at this we cite as evidence no more than even the grudging science of Professor Tyndall admits-matter and force,-though happily we reach a very different conclusion. He, if rightly reported, tells us that "we are all children of the sun; we must own our celestial pedigree along with the frog, the worm, and even those terrible fellows, the monkey and the gorilla." And, with him, we are quite ready to "own our celestial pedigree," and moreover along with all created being; but not of the sun, but of Him whose handiwork the sun itself is; nor on the same platform with all creaturehood, but elevated far above it, even as spirit rises above matter, or the likeness of the Creator above every being of a lower type. True, the Professor admits that "to the combination and resolution of matter and force is confined the entire play of the scientific intellect," and that "men of science—physical philosophers as such must all be materialists." Happily we are enfranchised with a more generous freedom, and, recognizing to the full the legitimate domain of physical science, grasp firmly that larger and higher body of truth of which physical science is but one Assuming, therefore, that Natural Theology on her part does demonstrate the existence of a personal God, of power and benevolence, and in both infinite, so far as such an attribute can be gleaned from the contemplation of finite things, I pass on to the Sacred Books,—the revelation by word of Him of whom the universe is the manifestation by work, and to the consideration of their intrinsic character and contents, their value as a basis of scientific truth.

It must be obvious that the several classes of truth embraced in God's word, in their most meagre enumeration, forbid any separate treatment, even the most limited, which we might be disposed to afford them. The very existence of the Bible, its cosmogony, ethnology, psychology, ethics, history-its supernatural element—its theism—its theocracy, material, national, social, individual, spiritual—its inspiration—its miracles—even these, and the several phases of these, utterly bar out a separate examination. I shall therefore address myself to one and only one element, the last enumeratedmiracles. And I shall do this also under only one aspect prophecy. For I hold that miracle, in its most legitimate use. includes prophecy: miracle, a wonder, something above human power,—a wonder wrought, a miracle of operation—a wonder spoken, a miracle of illumination. Prescience is not an attribute of man. If, therefore, we find events mentioned in records confessedly anterior to those events, predicted too with a circumstantial exactness which negatives all idea of a mere fortuitous accomplishment, sometimes embracing the most improbable, almost contrariant, statements, utterly hopeless of being realized by the most laboured adaptation; surely here is miracle—either a miracle of fore-knowledge or of after-And, here again, but for the labour of others, I should be constrained to enter more at large into this matter, and to endeavour to meet objections to miracles instead of simply utilizing the miraculous element, adducing them as evidence. This work has, however, been very ably and sufficiently done by Mr. English in his paper read before this Institute during our last session, and therefore passing by all objections here, from the earliest to perhaps the latest sceptical utterance on this subject—from Mr. Hume's notorious, and to my mind untenable, position, that a miracle is contrary to experience, down to Mr. Crawfurd's dictum, if rightly reported, at the recent meeting of the British Association at Dundee, that "a miracle is a cause inadmissible in science, or at least ought to be restricted to one great and for ever inscrutable secret—the creation itself;" thus, in one breath, both excluding and admitting a miracle—excluding what seems inconvenient to his theory, admitting what the very senses conspire to witness, the miracle of creation; passing by all objections in this place, I proceed to suggest, by way of example, the following observed phenomena, selected especially on this ground, that in each and all the priority of the records cannot be questioned, the respective accomplishments, either in their past or current effects, being patent to this hour.

My first example is the Sacred Record itself. I shall not touch the points arising out of the claim to Divine inspiration, either as to any particular theory, its mode, or its extent; but confining our test to the prophetical element, we need only to establish the one relation between the two parts of which it consists, that of clear succession in point of date—undoubted priority of the predictions to their respective accomplishments —in a word, that the assumed are real predictions. We know that this has been questioned, and upon what grounditself a testimony to the exactness of the fulfilments. know also how ably and conclusively our position, even by means of a searching criticism, has been fortified; witness the noble works of Dr. Pusey on "Daniel," and Dr. Payne Smith on "Isaiah." We have also, no mean support or advantage, the general connection between sacred and profane history—in no measure at proved variance with the

scope, and in a large measure confirmatory of the details of our chronology, certainly so far as the relation between Jewish and Christian history is concerned. Our strongest ground, however, lies in the fact that our records are the records of religious rivals, and rivals, moreover, with no mean measure of the odium theologicum; and that they have been catalogued, warded, and hedged around in a manner that no other records have ever been. The bare mention of the wellknown fact that the Jewish sacred books were so analyzed and tabulated, that not only their divisional and verbal, but even their literal correctness is guaranteed; and that, with a veneration amounting well nigh to superstition, the Jews not only applied a species of Cabalism to their Scriptures, but in their Masoretic notes and points descended to the very alphabetic component characters; and we have a security for the perfect accuracy of their books, as they have come down to us, which the student in vain seeks for in any others. Place side by side with this fact the early formation of the Christian canon, and the jealous care and discrimination by which some books were excluded and some retained, and we have another pledge for not only the genuineness and authenticity of the component parts, but for the truth and accuracy of the entire collection.

And with thoroughly trustworthy Jewish Scriptures and unimpeachable Canonical Books, the desired evidence of succession is secured, and the reality of prediction and fulfilment established. The early distich fully sets forth our position:—

"In vetere testamento novum latet, In novo testamento vetus patet"—

a position as tenable now as in all past times, and which justifies the further and greater conclusion of the general value of our Sacred Books, in their integrity, as a basis of scientific truth.

My next example is the revelation respecting the person of the founder of Christianity, one of the great central truths of Theology. Now, true or false, no man can deny that the particulars, as predicted in the old Scriptures, and recited in the New, are, to say the least, marvellously coincident. Were we to sit down to write a life of the Saviour, with no other available authorities than the prophetical writings, we might from the several authors, and at various dates, so fully delineate every important feature, as almost to leave nothing for the historian, in the actual portraiture, to supply. Thus we could set forth His genealogy; His exceptional conception

and birth; the time, place, and circumstances of it; His early dangers; His high and holy qualities; His manner of life; His prophetical, priestly, and kingly offices; and the salient points of His death, resurrection, and ascension. Again, as to the Divine side of His character, we might advance from His marvellous generation to His Godhead, as witnessed by the ascription to Him of every attribute, title, and operation of Deity; His headship over the Church; His mediatorial dignity; His office of dispenser of Divine gifts; His designation to be the final judge. And, once more, and more noticeable as apparently conflicting predictions, and reconcilable only on the hypothesis of His conjoint nature, God-man, we learn that He was to be both Son of God and son of Man: David's son, yet David's Lord-Messias the suffering, yet Messias the glorified one. Now, with only the indication of these points—and they might be largely extended -can we reconcile so many, so precise, and yet so diversified predictions; some, too, so unique, so inconceivable and seemingly so conflicting, all finding a full and exact satisfaction, a perfect embodiment in the person of Jesus Christ, save on the ground that the predictions and the accomplishments were both of Can we evade the testimony to the truth of both dispensations which they afford, and therefore the stamp of accuracy, as a scientific basis, which they set upon the Sacred Books? Nor is this a testimony of the past only, but a current and future testimony: the investigation and comparison are as seasonable now as when they were first possible, and the witness they give appeals to every successive generation and every individual student.

We have a third example in the Jews as a people. And here I shall purposely pass by all the cumulative evidence which does not consequentially reach down to our day; not by reason of any inherent defect or weakness in the facts, but in order to present only that which comes legitimately within the scope of exact observation. The Jewish people, then, confessedly once a nation among nations—a people of considerable power and influence among powerful and influential peoples-played no mean part in the early history of our race. Their origin, consolidation, and career are not myths of a prehistoric period, nor the details of their polity the conjectures and guesses of pre-historic times. They are records, and such records as are extant of no contemporary race. What the Jewish people are now is patent to the world. We say advisedly to the world, for they are everywhere, and everywhere the same. A people—who can gainsay it?—a people in sentiment, in habit, in physiology; a people in banishment, in suffering, in oppression; cosmopolitan in presence, though not in citizenship; a people without a realm; whose religion two thousand years of exile has not availed to crush; whose aspirations and expectations are unquenched, and would seem unquenchable. Is there any parallel for this—any approximation to it? Egypt and Assyria, Babylon and Persia, Greece and Rome have been: some still enjoy "a local habitation," all "a name." But where are the peoples? What their Are any "scattered" everywhere—"peeled," histories? "trodden down," "a byword" and "a reproach," and yet a people? Strange diversity, and yet more strange resemblance! The antecedents, the courses, the issues all have one source the Divine will. The Jews have been, and are, what the Sacred Books predicted, and our experience to this day verifies. The nations have been, are or are not, what, accomplished or as yet unaccomplished, the same books foretell. The nations, more or less ephemeral, supply a passing witness; the Jews, a continuous evidence of nigh four thousand years—and, what is more to our purpose, a standing witness of to-day. The Jew stands before the world this day the living attestation to the truth of the Bible, friends or foes being the judges. History furnishes no second example, save perhaps the case of the Arab—kindred, yet diverse. And this, if alleged, is but an additional witness; for the annals of both accord. temporary in origin, they have run a contemporary course; and each, this day, verifies its particular destiny. The prediction of three thousand years, therefore, has in both cases its accomplishment before our eyes; and since none can predict but Deity, we have clearly the word of Deity in our hands, and, as such, emphatically a fitting basis of scientific truth.

My last example is the visible embodiment of Theology—the Christian Church. In the year 28 of the Christian era, the historian relates that amid the mountain ranges of Upper Galilee a little group of peasants stood round their leader, and that from that leader's lips fell words, either of high mysterious import, or of almost inconceivable vaunt and impotence:—"On this rock will I build my church, and the gates of hell shall not prevail against it." One brief year only elapses, and all seems marvellously changed. The leader has died a felon's death and found an early grave, and his adherents, cowed and scattered, cease to be a band. And yet more marvellous issues succeed. The dispirited and dispersed reappear as heroes. A company is consolidated. It grows, grows on—on, till not only, phænix-like, it rises into new life,

but with a vigour and power unknown to its earlier phase onward till it embraces peoples and kings, and is established in the high places of the earth; onward to this hour, ever expanding, ever deepening and strengthening, victorious over every adversary, undaunted, majestic, defiant-"fair as the moon, clear as the sun, and terrible as an army with banners." The alleged solution of all this is simply that the leader was the embodiment of what prophets had foretold—was the Messiah of Israel, incarnate God; and that, raised from the dead. He had once more rallied these men around Him. and endowed them with superhuman strength for their work; in one word, that these Galilean peasants, be they illiterate fishermen or contemned publicans, were God-appointed servants—were the prime agents for enacting the Master's will—were the master-builders of the promised Church. History affords no parallel to this. History speaks of several who advanced equally high, yea, the very same pretensions, and grounded them upon the same alleged manifestations. Pseudo-Messiahs many, pretenders to thaumaturgy, surrounding themselves with followers, challenging the national mind, awakening the national prejudices, endangering the national peace. And where are they, one and all? "Nubecula est transibit." (Ephemeral impostors, they passed away, and for ever.) We know their names and their crimes; they have no other memorial.

Other pretensions also have been advanced, and other pretenders have come upon the world's stage. He, emphatically called the false prophet, Mahomet, and his system survives. But neither here is there any real parallel. The characters of the respective founders; the systems they founded; the principles, morals, maxims, motives, hopes, and ends, are not only diverse, but antagonistic. The one is only a second form or religious development of a purely secular polity; the other, a kingdom not of this world: the one has not only inherent elements of dissolution, but is already tottering to its fall; the other rests on nothing short of a purely spiritual basis, which time itself cannot overthrow, and no earthly power or event can weaken.

Those who reject our Sacred Books will, of course, protest against any reference to the revealed accounts of these several examples as unphilosophical. I ask such, is it philosophical to accept existing phenomena and to rest content without any sufficient solution? Eliminate the revealed element, and you have an existing institution for which you can assign no adequate origin. Assume, if you will, in the founder, the enthusiasm, nay, the ecstasy of humanity—invest every Apostle

with the heroism of a demigod, and the premises fail. Earthly powers may accomplish earthly results; but no earthly intellect can foreknow and foretell. On such an hypothesis an illiterate peasant penetrates the veil of two thousand years, and, with oracular power, proclaims its highest marvel. Grant the revealed element, and philosophy is satisfied; an obvious phenomenon is traced up to an adequate cause. But this done, and all is conceded which we ask. Theology then rests on a divinely inspired record, established on evidence external and internal, and is built up on not only the sure logic of

truth, but on the inexorable logic of facts.

Before proceeding to my last division, I would devote one paragraph to confessedly a very important item in scientific investigations—analogy. Analogous reasoning is by no means foreign to Theology. The sacred writers adopt it; the schoolmen employ it; one, at least, of the ancient creeds embodies it; whilst its importance in inductive philosophy is unquestioned. I hesitate not, therefore, to employ it here, and to a subject seemingly the most abstruse in the whole range of theological truth—the tri-unity of the Godhead. Since this is neither the place nor time for proving the doctrine of the Trinity to be a truth of revelation, I here at once assume it so to be, merely noting that it clearly enters into the earlier dispensation and more ancient writings in a germinal form, an adumbration; and in the later dispensation and more recent writings in its development, a clear dogma. With the view of exhibiting the absolute agreement subsisting among all the evidential portions of theology and their harmony as a whole, I would suggest some few, I venture to think not unimportant, analogies between the truth thus enunciated and what may be gleaned from our cosmical system.

Take, first, the law of attraction,—one principle, but of threefold action,—the attraction of gravitation, the action of the larger body upon the lesser,—the attraction of cohesion, the mutual action of the component particles of each given body,—and chemical attraction, the combination of particles having mutual affinities; yet are these not three, but one great principle. Take the motions of the heavenly bodies,—the motion of each planet on its axis, the further motion of the planetary system round the sun, and the yet more general movement of the solar system, with all other systems, through space: three distinct motions combined into one harmonious progression. Again, consider light, a triple compound, the solar spectrum in reality consisting of three spectra—the luminous, the calorific, and the actinic. The luminous spectrum again sub-compounded into the yellow, the red, and the blue

rays. Atmospheric air, again, a triple compound—three gases so blended as to sustain life, any one of which, inhaled alone, would destroy it. Water, also, is of a triple constitution, at least in respect of its accidents, being water, or ice, or steam, according to the quantity of heat inherent in it at the moment. is electricity of triple constitution. Again, take the human subject—consider man. He has, first, a bodily organization; second, a principle of life in common with all animals; third, a principle of mind peculiar to himself. In his bodily organization, again, he has a threefold vital mechanism,—the heart, the lungs, and the brain, emphatically, I believe, called by anatomists "the tripod of life," circulation, respiration, and sensation being the means by which he lives, moves, and communicates with the outer world. His nervous system also is threefold—the motor nerves, moving the limbs; the sentient nerves, conveying the intimations of the senses to the mind; and the ganglionic, neither motive nor sentient, but presiding over the organic life, growth, and nutriment of the body. Yet these three, united in one brain, constitute in reality but one nervous system. Again, man as a reasonable creature. mind is tripartite, consisting of the intellectual, the moral, and the voluntary powers; and further, in the exercise of his intelligence, his processes of argumentation seem to follow the same law; e.g., the syllogistic form. Take the colloquial formulæ by which he expresses his relation to either time or space: e. q., the past, the present, the future—man's standpoint, and, in connection with it, either above and below, on the right hand and on the left, in front and in the rear. Take his expressions for space in the exact sciences,—positive, zero, negative; or positive, infinite, negative. Take intercepted motion: the impact, the arrest, the recoil; or the commingling of two opposite waves of sound and the mute point of junction, or of two opposite rays of light and the inferred point of darkness. And, with more or less of exactness, these instances might be almost indefinitely multiplied. Now, we venture to ask, is all this a purely fanciful generalization; or is it within the limits of, and conformable to, a sound philosophical conclusion, to regard all as the mark of the Great First Cause upon His mundane work; the stamp on all things of His own recondite essence; "the image," faint it may be, and "the superscription," illegible possibly by some, but which truly shadow forth the Cæsar of all Cæsars, the designer of all designs, the great Central Being whose they one and all are, and to whom they one and all point? I know that triplex arrangements in given objects, more or less fanciful, have long been alleged as illustrations of the triune Godhead. Thus the roots, the

trunk, and the branches of a tree; the wax, the stamp, and the impression of a seal; and the Elizabethan poet writes:—

"If in a three-square glasse, as thick as cleare, (Being but dark earth, though made diaphanall,) Beauties divine, that ravish, seme appeare, Making the soule with ioy in trance to fall; What then, my soule, shalt thou in heav'n behold, In that cleare mirror of the Trinity?"

I claim, however, a deeper significancy and a higher standpoint for the foregoing. Illustrations they may be and are;
but beyond this, if "reality and similarity of relation, and not
actual resemblance, be what analogy denotes," I submit them
as so many physical or mental analogues of the revealed
tripartite constitution of the Godhead; the mute, but not less
eloquent tribute of the seen to the unseen; of created things
and order to the revealed hypostases of Deity. Spectrum
analysis by analogy, pronounces upon the presence or absence
of certain known substances in the several heavenly bodies
upon which that science has been employed; and, by analogy,
I believe that Theology pronounces upon the particular being
of God—an analogy not one iota less trustworthy, and of far

longer and larger application.

And now we reach our last division—Experimental Theology. Here we obviously quit both the material and purely mental, for the spiritual; and here, therefore, we encounter in full force the objection of mere materialistic science to the importation of an element the existence of which it ignores, and too many of its advocates loudly deny. I therefore premise, in brief, one or two general considerations. What is experimental science but an operation, or series of operations, by which some unknown truth, or principle, or effect, is sought to be discovered, or, being discovered, is sought to be esta-In physical science, experiment is of the last importance; and so it is whenever it is practicable. When applied to some branches, it certainly fails to supply the experimentum crucis; yet, so far as it holds, its evidence is in all cases trustworthy. Now, I purpose to apply the method to Theology on this lower assumption; not making it the crucial test, but a sound and valid supplemental branch. Again, if it be alleged that experiment applies only so far as the subject is cognizable by the senses—that, especially and emphatically. spiritual powers and operations are beyond its tests—I ask, is the evidence of the unaided senses always enough and con-Do the eye, the ear, the touch never delude—and that, too, not tyros nor sciolists, but experienced and accredited

men of science? If so, what need of all the elaborate and complex apparatus which physical science lays under contribution in her operations? Whence even observations which do not accord, and experiments which contradict each other? Moreover, is any observation or any experiment, per se, of worth—the single act of observing, or the manipulating act in experimenting? or rather these submitted to and determined upon by the action of the mind? And if this be so—if even in physics, observations and experiments must be supplemented by mental processes, is experiment inapplicable to mental science, or to any branch simply independent of, not opposed to, the senses? Is moral science incapable of experiment?—the response of the outer life to the deep down inner principles of right and wrong? But if the mind revolve, ponder, and decide, supplemental to observation or experiment by the senses, and quite beyond the cognizance of others; and if the conscience, still deeper down in man's nature, arbitrate, often without any process of reasoning, by a moral instinct, and wholly irrespective of the outer senses, why exclude spiritual operations? why ignore or deny spiritual powers, because they, too, elude the outward observation? certain class of scientific men complacently deny the existence of a spiritual nature in man, because they do not perceive it, and have no experience of it, others may, with equal consistency, deny the existence of a moral nature, because they do not perceive, have no experience of, and care not for it: just as a blind man who, knowing nothing and having no experience of sight, may deny its existence; or the idiot, whose mental blank permits him not to recognize the powers of mind in others, may believe all to be like himself. But, assuredly, these both are patent fallacies. I take it that spiritual results speak the existence of a spiritual power, even as mental and physical results speak the existence of mental and physical powers; and that we are as strictly scientific when we deal with the one class of phenomena as when we deal with the other classes. Indeed, man is so essentially a spiritual being and agent, that, quench the utterances and stay the actions of this higher and inner life, and you despoil him of his especial characteristic, obscure his noblest attributes, and mar his loftiest ends. Surely man has long and far advanced beyond the mere life of the senses; and the deep inmost throb of his consciousness for something beyond and above all that the senses can descry, is neither the animal nor the merely moral, but the spiritual want of his nature; the evidence of that spiritual life which suggests the crowning analogy between him and his Maker; a triple being of body, soul, and spirit; the living reflection of the Father, the Son,

and the Holy Ghost.

Passing, then, from objective to subjective Theology—from a system of truth propounded for belief to that system in operation—from the creed to the believer, we pass into the domain of practical life, surely the fitting sphere of all legitimate experiment. And here I purpose to glance at three salient points:—the commencement, the course, and the close of the life spiritual; in other words, the Christian's spiritual consciousness, testimony, and trust. These points respectively answer to distinct and positive statements in God's Word, and are among the great ends of all theological truth. Thus, the commencement, "Verily, verily, I say unto thee, except a man be born again [from above], he cannot see the kingdom of God;" "Except a man be born of water and of the Spirit, he cannot enter into the kingdom of God;" and "That which is born of the Spirit is spirit;"—the course, "If any man be in Christ, he is a new creature; ""I live, yet not I, but Christ liveth in me; "-and the close, "He that soweth to the Spirit, shall of the Spirit reap life everlasting;" and "Christ in you the hope of glory." Now here are three distinct issues, three fair tests:-1. That the believer has received a higher and supplemental life; from birth a natural man after the flesh, from the new birth a spiritual man after the Spirit. 2. That his life is modified by, or rather is the proper exponent of, his new and spiritual birth; a new creature and in all things; his former self subordinated to his inner self, his outer life moulded by his higher being. 3. That his spiritual inheritance, sustaining him throughout, issues in glory.

In certain schools of thought we know that all human advancement is traced to two sources—individual development and external civilization; and, within their respective limits, I question not the value or the achievements of either. I accept, however, another channel, that which history and experience alike attest, and which presents phenomena for which the others and all others offer no sufficient explanation. As all three positions belong to classes and not to individuals only, and each therefore may be regarded as typal rather than individual, and thus be taken out of the category of mere personal investigation, I purpose so to treat each here. first position, then, is that experimentally the believer has received a supplemental life, a new birth, a spiritual existence. Now, consider the Apostles in the brief interval between the betrayal of their leader and the day of Pentecost. One boldly denied, one and all were renegades; two "had hoped," but hope was dead; one disbelieved, and others had reverted to their old calling, "I go a-fishing;" "we also go with thee." A few weeks elapse, and all craven fears are gone. Wherefore? They had witnessed a spectacle which held them as by a spell; they had heard words, hanging upon which they waited earnestly from day to day for the promise; and at length, gathered in one place, they entered that upper chamber for the last time as mere expectants, and emerged confessors and heroes, some soon to be martyrs. history, if any history be extant; and the key to all is, that the Spirit had descended upon them—they had been born from above. Nothing else in the narrative—nothing that any school of thought suggests, explains the phenomena. Another St. Paul leaves Jerusalem, breathing slaughter against "all of this way," and when he reaches Damascus he is a believer; henceforth his every instinct is bent backwards: Saul is now Paul, the persecutor has become the Apostle. He. too, has seen a light, heard a voice, felt a power, and he is changed, born of the Spirit. Nothing but this satisfies the facts of the case. And these are types; not alone these, e.g., the jailer at Philippi, Lydia, and others, and reproduced in myriads of cases from that day to this. Not always as obvious, but always as real. As well believe vegetable and animal life to have no cause, as believe spiritual life to have none. As well believe animal and mental and moral life not diverse, as believe that spiritual life differs not from each and all. Of all perceptible things, nothing is so perceptible; of all reality, nothing so real as that which stirs the soul and vibrates through the spirit that is in man.

2ndly. That the believer's course is the proper exponent of this new and spiritual birth—his outer life the reflection of his inner being. Again I draw my example from apostolic times. On receiving the spiritual life, the first demand of St. Paul was-" What wilt Thou have me to do?" When the time of his departure was at hand, his note of spiritual triumph was-"I have fought a good fight, I have finished my course, I have kept the faith." What that fight, course, and faith were, I need not here detail. No pure fiction is more marvellous; no conceivable career less earth-born; no achievements more noble. Philosophy presents no parallel; philanthropy no rival; humanity no equal. It was the legitimate "fruit of the Spirit." Again, the disciples, as a body. A.D. 33, ushered in a great persecution of the Church at Jerusalem, and the disciples were scattered abroad, except the Apostles, and they that were scattered abroad went everywhere preaching the Word. Now, whether we regard

the Apostles continuing at Jerusalem, the centre of persecution,-men who had left all for Christ, and would now leave Christ for no man; or the disciples preaching, labouring, suffering everywhere, and both the one and the other, as the necessity arose, sealing their labours and their testimony with their blood, we have a devotion to truth which, so far as I know, no disciple of science has ever emulated, and a course which mere intellectuality has never exhibited, and for which mere self-cultivation, with all the appliances of civilized life, is no adequate preparation. It is the fruit of the Spirit. And from that hour to this the same fruit—the same in kind, if different in measure—has been borne throughout the Christian Church: and from St. Paul to the sainted Henry Martyn, "the tent-maker" of Tarsus to the Senior Wrangler of Cambridge; and from "the Areopagite," and "those of Cæsar's household," and "the honourable women not a few," down to Schwartz and Brainerd, and Neff and Newton (once the blaspheming slave-driver), "men who counted not their lives dear unto them," yea, and the whole family of the new-born, the evidence is one and unbroken, the experiment holds in all its breadth: the new birth is the forerunner of the new life—where the Spirit dwells, thence issue the fruits of the Spirit.

3rdly. The believer's spiritual inheritance sustains him to the last, and issues in glory. To this let our sacred penman speak. St. Paul, testifying that he had kept the faith to the end, adds this rooted conviction:—"Henceforth there is laid up for me a crown of righteousness, which the Lord, the righteous Judge, shall give me at that day, and not me only, but unto all those also who love His appearing." St. James encourages thus:-"Be patient, stablish your hearts, for the coming of the Lord draweth nigh." St. Peter: "Knowing that shortly I must put off my tabernacle, even as our Lord Jesus Christ hath showed me." St. John: "Beloved, now are we the sons of God, and it doth not yet appear what we shall be; but we know that when He shall appear, we shall be like Him, for we shall see Him as He is." And St. Jude: "Beloved, building up yourselves on your most holy faith, praying in the Holy Ghost, keep yourselves in the love of God, looking for the mercy of our Lord Jesus Christ unto eternal life." But the crowning testimony remains—the true experimentum crucis—the individual test. St. Stephen: In the agonies of a violent death, at the moment that the departing spirit was quitting the body, the proto-martyr's triumphant cry was, "Lord Jesus, receive my spirit." And from the stoned outside Jerusalem to the burned at Smithfield and

Oxford and Gloucester—from the holy Stephen down to the martyrs of the Reformation—our Cranmers and Latimers and Ridleys—and onward to this hour, confessors have never been wanting, nor have triumphs failed. Not enthusiasts, not fanatics, not dolts, but sober thinkers, solid intellects, pure spirits-our Bacons and our Newtons, our Lockes and our Miltons—sainted women and untainted children—prince and peasant, learned and unlearned, gentle and simple—multitudes innumerable have lived and died as they-nay, rather, died, and now live as they—their departure an euthanasia, their inheritance a crown. Surely Christianity is worse than a mere delusion, and its founder low down in the catalogue of impostors, if this inwrought conviction and dependence be a cheat. Yes, Christianity stands or falls as a whole. Either a masterpiece of craft, folly, and lies, or an imperishable monument of honesty and soberness and truth. True, Paganism and Mohammedanism, and even Atheism, can boast their victims; and these truly have braved death. But the believer does not brave death, he hails life—no conjectural transmigration, no carnal paradise, no blank annihilation—LIFE; an undying, unchanging spiritual being, begun below, and perfected and perpetuated above.

I have now completed the task contemplated in this paper -how faultily and imperfectly I am fully and painfully conscious. As I hinted at the outset, far from pretending to be exhaustive, it is simply suggestive; rather indicating the course which seems to be open to the theologian than really occupying it. I have, of set purpose, endeavoured to avoid polemics, and to treat Theology, per se, pure and simple. have observed neither partial nor dispensational limits; neither patristic, mediæval, nor modern divisions. passed by the conjectures and assumptions of the "higher criticism," the figment of a "verifying faculty," and the inflated pretensions of the vaunted "theology nineteenth century." I have followed no particular ecclesiastical leading, no partisan bias. I have taken Theology as I find it—theology proper—grounded on its conjoint bases, creation and revelation, the work and the word of God. now simply ask, Is Theology, from a scientific standpoint, so fallacious or so effete, that it ought to be thrust at once and for ever beyond the pale of the sciences as a system long since exploded—a caput mortuum? or is it not only a science, but the facile princeps of all sciences, satisfying every condition of a true philosophy, and admitting, in its several bearings, of every modification of proof? I speak as to wise men, judge ve. '

Surely if there be one characteristic of our age more prominent than another, it is that of comprehensiveness rather than of exclusion—of so-called large-heartedness rather than narrowness of mind. We have had scientific theories ad nauseam—theories almost to the obscuration of science: our nebular theory, our vulcanic theory, our plutonic theory respecting the earth—and each has had its day and passed current as science. We have had theories of man's origin and status: theories of development, of selection, of spontaneous generation; theories of optimism, of perfectibility, of utilitarianism: and each has been accounted a science, and each has numbered its disciples. From the optimism of Leibnitz, and the perfectibility of Turgot and Condorcet, down to the positivism of Comte, whether the utterances of a religious seriousness vindicating God, or of a philosophical infidelity deifying man, culminating in a sheer empiricism, semi-scientific with its "hierarchical order," and steeped in superstition with its "worship of humanity,"-"the systematic idealization of final sociability." whatever that may mean—none has been excluded, each one has been accounted science. Theology alone, in the judgment and suffrage of some, is under the ban. If all the foregoing are rightly included, we ought perhaps not to complain that Theology is excluded.

I say all this in unfeigned love of legitimate science, and a corresponding admiration of really scientific men; and I am persuaded that from neither the one nor the other of these has either Theology or the Theologian anything to fear. Those with whom we have to do battle are men-really scientific men, it may be, in their own particular branches—who quietly ignore our system, which, we fear, they have never examined, and with whom its rejection is therefore a foregone conclusion. How far this is philosophical I leave to them to determine. We allege no oppugnancy between other sciences and Theology. Our deep conviction is, that all branches of true science are really and fully at one, and that it needs only that the good and the true should be separated from the refuse and the vile, and each branch of science pushed faithfully, and honestly, and logically, to its legitimate issues, to make this oneness abundantly apparent. If, however, men of any particular school of thought whatever, will represent and labour to exhibit an antagonism between the partial truths and facts of science, and the perfect truth and operations of God, the only safe standpoint in the controversy for every Christian man is that of St. Paul in a somewhat analogous position, "Let God be true, and every man a liar."

The CHAIRMAN.—I am sure you all feel very much indebted to Mr. De La Mare for his interesting paper, more especially as it relates to so much that this society was founded to bring before the notice of the public, and I beg to propose that the thanks of the meeting be given to the author. (Hear, hear.) I shall now be glad to hear any observations upon the paper.

Rev. C. A. Row.—I have given a great deal of consideration to the subject of the paper, and I think the easiest way in which I can deal with it now, will be not to discuss the whole of it, but to select merely one or two points on which to express my own views. While the paper was being read, I noted down no less than twenty-six of those points, and I think, if I were to attempt to discuss them all, I should not have finished by sunrise. I so far agree with Mr. De La Mare as to think it is possible to make theology more scientific than it is at present, but I cannot go further than that; and I think that we have no prospect of making theology a science in itself. To my mind. theology consists of, or rather is illustrated by, ten, twenty, or thirty totally distinct and separate sciences. Now just let me draw your attention to a few of the sources from which anything like a scientific theology must come, if we can possibly have a theological science at all. There are only two principles that can be applied to science,—the principle of induction and the principle of deduction. Is scientific theology an à priori or an à posteriori science? Until we determine that, we cannot advance one single step. The science of theology can only be founded on à priori science, so far as we are able to give to theology distinct and accurate definitions. Now several things have been mentioned in the paper as definitions and axioms, and so forth; but I have failed to find in any one of them that which would amount to a proper definition. and I cannot find any of them participating in the nature of axiomatic truth. In one passage, the word "perfect" has been used by Mr. De La Mare; but while he has applied it to the Deity in one sense, he has applied it to man in another. It may be a distinct and a positive truth when it is said that God is angry or furious; but those phrases are used, not in relation to Deity itself. but in relation to man's conceptions of Deity. The Articles of the Church of England say most plainly and distinctly that the Deity has no body, parts, or passions; and the Deity, therefore, in relation to Himself is not angry or furious, while in relation to man's conceptions this may be true. You see we are bound first, to distinguish between truth as applied to the Deity and as applied to man. A priori science is only possible where strict definition is possible. Bear in mind that I am not contending that there should be the strictly logical definition, consisting, in the phraseology of logicians, of genus and differentia; but until we can have a definition to describe one particular thing so as to distinguish it from everything else, such a science is not possible. The definitions in the first book of Euclid are rational in the strictest sense of the term, because they do separate and mark off the thing defined from every other object, although they are not logical. In Euclid, geometry deals with one idea of the human mind,-the idea of extension; but in theology, taking the word in the large sense, as it has been taken by Mr. De La Mare, we have to deal with an endless number of things and ideas, and there is at the very outset a difficulty in respect of definition in some portions of theology which we are not yet in a position to snrmount. De La Mare gives us as a theological definition, such a phrase as "God is a spirit." Now, that is no definition at all; it is simply a proposition, and nothing more. The only thing that approaches to axiomatic character in the instances given us in the paper, is that phrase "the Lord God omnipotent reigneth." If you assume that there is a Lord God, and that He is omnipotent, it is axiomatic to say that He reigneth, because that is involved in the one idea of the Lord God omnipotent; but it is absolutely impossible to represent any of those propositions or phrases as axioms or definitions. The à priori treatment of theology is a matter of great difficulty, and if we deal with it at all, we should want another Bacon to take it in hand in a new Novum Organon. The principle of deduction as applied to theology, is a sound principle and here, of course, I speak not of natural theology, but of revealed theology, taking in the whole extent of supernatural Divine revelation, and not the revelation of God in the natural universe, a matter which belongs to an entirely different branch of the subject, and to entirely different scientific principles. Baconian principle, as rightly applied to Divine revelation, consists in a certain number of distinctive facts. One prominent fact lies at the basis of all Divine revelation—the great fact of the Incarnation. And here I find a difficulty in explaining myself, because our translation of the Scriptures is so inaccurate in some places as to make it impossible for those who have not studied the original tongues to follow me. I allude to the statement of the sacred writer that God has at sundry times and in divers ways spoken to us by the prophets, and that, in these last days, He has spoken to us by the Son. Now here the translation is unquestionably wrong. Those who are acquainted with the original Greek. know it sets forth that God has spoken to us not by the prophets, but in the prophets—not by the Son, but in the Son. The sacred writer means that God has spoken not only by the Son, but in the person of the Son. Now that makes all the difference in the world. The first point, then, is to ascertain distinctly and certainly the meaning of the words of the New Testament. We must translate the conceptions in Greek of the sacred writers into equally distinct and plain conceptions in the English language, and without that any treatment of theology in a scientific manner is altogether beside the purpose, and indeed impossible. I was struck yesterday by a point which shows how important it is that we should have precise and accurate translations of the words and phrases of Scripture. In the New Testament the terms which we translate by the word miracle are three in number. They are σημεῖον, δύναμις, and τέρας. Now, each of those has different meanings, but they are generally translated by the word miracle. Now St. John in his gospel has invariably used the word σημεῖον, which means a sign. It is impossible to suppose that he did not do that with a special intention and purpose, and that is altogether lost sight of when we have all these phrases

mixed up together under the one common term miracle. The word $\sigma\eta\mu\epsilon\tilde{i}\rho\nu$ is a sign; the word $\tau\hat{i}\rho\alpha\varsigma$ merely denotes a prodigy. Until we have some better basis to proceed upon than we have at present, we cannot reach a scientific system of theology——

Mr. Reddie.—Will you allow me to ask, is it really your view that we cannot have a proper system of Christian theology unless we have a correct translation of the Greek Testament into English?

Mr. Row.—I did not mean to say that. What I mean is that we cannot properly have such a system until the New Testament is made accurately intelligible, not to those who read Greek, but to those who cannot read Greek.——

Mr. Reddie.—The object of my interrogation was to point out that systematic Christian theology certainly did not wait until the English language had developed, or even till England became Christian, and so it cannot depend upon the translation of the Greek Testament into English.

Mr. Row.—When I spoke of a system of scientific theology, I meant such a system as should be intelligible to the English public. The principle of induction ought to be applied to all the leading facts of the New Testament to arrive at the deductive view of Christian theology——

Captain Fishbourne.—I rise to order. I submit that all this is hardly germane to the paper before us, although Mr. Row is no doubt suggesting what would make a very good separate paper for discussion on another occasion.

The Chairman.—I think Mr. Row is not deviating from the subject before us. All that he has said fairly arises out of the paper, although I am sure we should also be glad to have from him a paper on the subject at another time. Such a paper, I am sure, would be very valuable.

Mr. Row.—I have no objection to supply such a paper for one of our future meetings. (Hear, hear.) To return to Mr. De La Mare's paper. I will suppose that we have made a second induction on the facts of the New Testament. What is the next thing in order to found a scientific theology? It would be to construct a theory to cover those facts exactly. In that we must exercise no common care. Everybody thinks he may start some theory of his own, and endeavour to make the facts agree with it. I have already said that I think Mr. De La Mare's views with regard to definition are not satisfactory. He gives us an example:- "God is a spirit, and they that worship Him must worship Him in spirit." But you cannot say that that is an axiom. The latter part is certainly axiomatic, if you assume the first part; but that first part, that "God is a spirit," is a simple proposition. He also gives us an example, "God is;" but neither is that a definition. It merely asserts as a positive fact that the Deity does exist, and it is a simple categorical assertion, which is not axiomatic in any sense. There is also in the paper a certain unsatisfactoriness in the use of the word "infinite." In mathematics the expressions "infinite" and "not finite" may be taken as co-extensive; but when we speak of the infinite perfections of the Deity we mean something very different. We are guilty of some degree of inaccuracy in coupling the word "infinite" with God's moral perfections. I apprehend that God's power and wisdom are infinite, but I cannot understand how the word infinite can be used with regard to His goodness. That attribute is a perfect attribute, and there is a difference between the perfect attributes and the infinite attributes of the Deity. distinctness which I mention on the part of Mr. De La Mare has led to great confusion, of a very serious character in theology. There is another passage to which I must take very great exception. Mr. De La Mare says: "Were we to sit down to write a life of the Saviour, with no other available authorities than the prophetical writings, we might, from the several authors, and at various dates, so fully delineate every important feature, as almost to leave nothing for the historian, in the actual portraiture, to supply." That passage does certainly seem to give to the rationalist of modern times a vantageground, the importance of which I can hardly express. It is a very strong assertion to say that from the prophetical writings of the Old Testament alone the life of the Saviour, delineating almost every important feature of that life, could be written. Prophecy is one thing after it has been fulfilled, but it is quite a different thing before it has been fulfilled. It will illustrate better what I mean if I say that possibly, hereafter, the Book of Revelation may be tolerably clear to our descendants, but certainly now it is all a mass of darkness. A stronger weapon than that furnished by Mr. De La Mare could hardly be placed in the hands of the modern rationalist who declines to pin his faith to the New Testament. With regard to another point, I cannot help thinking that that portion of the paper which deals with the analogical part of the subject has not been treated upon a scientific principle. I could heap up ten thousand similar instances to those which Mr. De La Mare has quoted. It is easy to say the world consists of earth, air, and sea, and so on. There is really no end of such speculations, and instead of its being founded on a Scriptural basis, it is really founded on nothing of the kind.

Mr. WARINGTON.—I feel so very much with Mr. Row upon this subject, that if I were to attempt to go into it at any length to-night, I should have to raise such a long series of objections, that twould be necessary to create a new superstructure altogether upon the paper which has been read. I may say I agree here and there with Mr. De La Mare's views, but my reasons for doing so would be totally different from the reasons he has assigned. Under those circumstances I will confine my remarks to the analogies of the Trinity which have been instanced by Mr. De La Mare. He tells us, in the first place, that there is a threefold law of attraction-the attraction of gravitation, the attraction of cohesion, and chemical attraction, or the combination of particles having mutual affinity. Now it is an extremely disputed point whether there is any such thing at all as the attraction of cohesion, whether it is not a mere name for the absence of repelling force. The view held by many authorities is, that what we call the attraction of cohesion simply arises from the fact that there is no force to drive the particles away from one another. If that is so, we reduce our trinity to a duality; and this without touching the other question as to whether the attraction of gravitation may not be after all merely a modification of that other force, which we call chemical affinity. Then Mr. De La Mare tells us that there are three motions of the heavenly bodies—the motion of each planet on its axis, the motion of the planetary system round the sun, and the motion of the solar system with all other systems through space. believe that last motion is also disputed; and, if so, we once more reduce the three to two. In the next place we are told that light is a triple compound, the solar spectrum consisting of three spectra—the luminous, the calorific, and the actinic. But the student of physical science will tell you that all these are convertible one into the other, all three, in fact, being modifications of one force. In the next place we have an old fallacy, which I should have thought would by this time have vanished from every scientific mind: that is, that the luminous spectrum is compounded of three colours, yellow, red, and blue. But what is the simple fact? When you separate pure white light into its elements, you get, not three, but an infinite number of colours; and if you take any one of these colours, you cannot further decompose it. Take purple, for instance; can you separate that purple into blue and red? No. If you have no evidence, then, that this colour is actually made up of blue and red, what is your scientific ground for stating this? You may certainly take an artificially-made purple colour, and find that it consists of blue and red; and if you mix blue and red together you get the impression of purple upon the eye. But take the actual purple ray, and you will find that you cannot separate it into anything else. In the eye of science, therefore, it is an entity of itself, quite as much as yellow, blue, and red. Every distinct shade of colour is an entity by itself, for the impression of each is produced by a particular rate of undulation in the medium through which the light passes, and these various shades cannot be separated into anything else. The luminous spectrum, therefore, is not composed of three parts, but of an infinite number of parts. Then Mr. De La Mare refers to atmospheric air, which he says is a triple compound made up of three gases. But I was not aware that it was a compound at all.-It is a mixture, and it is composed, not of three but of dozens and hundreds of gases. The two gases forming the greatest proportion of atmospheric air are oxygen and nitrogen. Then you have water, carbonic acid, and ammonia, next in quantity; and then extremely minute traces of many other gases. There is evidently no trinity here. Mr. De La Mare also tells us that water is of a triple constitution, because it exists in the form of water, ice, and steam. But what is there of triple constitution here, because there are three forms in which water can exist? We are told next that electricity is of triple constitution, but we are not told how. I have always understood that electricity was not of three, but of two forms-positive and negative, or, as some prefer to say, vitreous and resinous. We are told also that man is of triple constitution; and here, indeed, Mr. De La Mare has a point in his favour. Man is composed of body, soul, and spirit, and we may fully admit that there is in that some analogy with the Divine Trinity. VOL. III.

But Mr. De La Mare goes beyond that, and says that man is of threefold vital mechanism, having heart, lungs, and brain; but why are the muscles and bones to be left out? I suppose because they would destroy the trinity. He also tells us that the nervous system is threefold, and that the mind is tripartite; but I confess that I utterly fail to see the trinity that has been laid down in these points. Mr. De Le Mare further says, that man's expressions in relation to space are threefold, because a thing may be on one side or the other, or in the middle. But if we come to analyze that, we find that "before" is a reality, and "behind" is a reality, but that "here" is a line. Now, what is a line? A thing which has no extension. "Here." however much we may practically feel it, simply consists of that which is not before nor behind; it is an inferential nothing, not past, nor future, but present. But that sort of analogy may be carried out with other numbers than three. Take two, for instance. I have two arms, two eyes, two ears; and so I find the number two running through every part of the animal creation, and even in the vegetable creation. By the way, the term "animal and vegetable creation" shows in itself a duality in regard to the forms of life. I find that every part of a plant can be traced to the modification of the stem or leaf. am asked what are the functions of a plant, I answer two, reproduction and growth. In chemistry I find that the whole tendency of the science is to make everything binary. Electricity consists of two forces, and so we might run on with science after science, and find abundance of examples of the preeminence of two. According to this, then, if we adopt Mr. De La Mare's views, we have here a ground for believing that there are only two principles in Deity. But, I ask, would any one be prepared on such grounds to question the doctrines revealed in the Scriptures? If not, how can such reasoning as this of Mr. De La Mare's be advanced in proof of the doctrine of the Trinity when it is of precisely the same character, only weaker?

Rev. Dr. Irons.—I appreciate so many things that have been said by Mr. De La Mare, that I should be very sorry indeed to speak at all severely or unkindly of his paper, although I do not agree with the whole of its contents. The paper is written with a deep religious sentiment, especially that part concerning the life and religion of the Christian soul, which was full of fervent piety. Having said that much, I must pause, because in almost every other respect I must say that I disagree with the whole tone and bearing of the essay. Mr. De La Mare seems to start with the idea that there is no scientific theology already existing, but that we must get one for ourselves somehow or other out of the Bible. If there be no such thing as a scientific theology at this time, I should be disposed to despair of our ever obtaining one, supposing we had to begin de novo. If we go back to St. John of Damascus at the end of the seventh century, soon after the birth of Mahommedanism, and after the extinction of the great Donatist heresy, we find that the Church had begun to feel most forcibly that it would not do to go on with an outline of a religion mixed up with the credulous and faulty opinions of individuals, as the substantial theology of the world. A great need was felt, and schools began to be formed. St. John of Damascus made it his business to draw

together the best of the various opinions of his own time, and to collate all the principal savings of the most learned men of the two or three preceding He did the work imperfectly, however, and his book on the orthodox faith was a condensation as well as a compilation, which was greatly improved by the illustrious Peter Lombard, "the Master of the Sentences," as he was called, who laid a better foundation for the ages to come after him. He began that work which has lasted until now; and with all due deference to those who think theology is scientifically faulty and indefinite, I think nothing has been so permanent, so consistently maintained, or so little misunderstood as theology. You find the same arrangement in all the great surveys of the first, the middle, and the latest schools. Thomas Aquinas is considered to be the pattern doctor of theology. His great Summa Theologia is still one of our theological standard works. He begins in his Prima Pars by pointing out that all the primary truths of theology must be submitted to a close analysis of the human reason. He deals with the nature, being, and attributes of God, and more than a hundred other distinct sets of propositions: and from that he advances to the consideration of the Trinity. But he does not leave out of his thought the possibility of other beings lying between God and man, and therefore he most suggestively inquires into the possibilities of heavenly and angelic existences. Thus in a most subtle and yet perfectly simple way he clears the ground, and puts aside all objections that must arise if he had not dealt with that point as a kind of episode. But who is that being who is to examine and consider the God who made him? so the second part of that great book is devoted to the examination of man and his duties. So that, after having discussed the first and general conditions of religion in the Prima Pars, we are invited in the Secunda to an extensive analysis of all the virtues. Then he comes naturally to the consideration of the union between man and God,—the Incarnation. He could not have discussed the Incarnation if he had not first of all examined what we believe concerning God, as well as what we believe concerning man; because if Christ is to be both God and man, we must clear our minds as to what God is and as to what man is; and this doctrine, as well as the career of our Blessed Master, will be found to depend on an exact understanding of what we mean by man as well as what we mean by God. The book next goes on to explain the system of the Church, in which the doctrine of the Incarnation has been most perfectly developed. The whole of the doctrine of the sacraments then naturally arises. This division of the Summa Theologia was not peculiar to St. Thomas Aquinas. You trace the same arrangement in William of Ockham and in Duns Scotus; and for five hundred years you have the great schools of Christian theology dealing thus with the whole subject; and now again In the Church of Rome this is you have scientific theology gaining ground. exhibited in a striking way, and I would to God it were here also; for I am sure that the revival of it in the Roman Church will tend to deprive the modern dogmas of that Church of all support. A proper statement of the nature of the Incarnation will for ever destroy the doctrine of the "Immaculate Conception," as it is called. Let us rejoice that there is this tendency

to the revival of the old scientific theology in the Roman Church; and if there were the same in our own Church, we should be better protected from much heresy which has risen in the present age. But it would not be fair to Mr. De La Mare if we were to leave his essay entirely without I will say how it struck me as I heard it read. to me that it was not so much an outline of scientific theology as an attempt to set up a basis on which the popular religion of England is supposed, by itself, to rest. Instead of being scientific, it is popular. It is an attempt to assimilate religion and modern science, to devise a new science of theology, by dealing with the Scriptures as you would deal with Newton's Principia, or any other book of natural science. That is very natural and proper, and we cannot wonder that the popular Protestantism of the day should wish to have some such work done. But I am not disposed to allow that there is anything in the Bible which will supply us with definitions, axioms, and postulates. I am quite sure that they will not be found there, and it is a mistake to expect them; but even the effort to find them may be productive of good. The Holy Scriptures are God's gift to His people. They do not, however, give us a scientific theology; and the intelligence of the natural man can never make a scientific system out of them. We should, I think, altogether go astray if we were to accept all the views of Mr. De La Mare; but at the same time, if his paper only leads to a discussion of that large and important subject, some good may be done by it.

The CHAIRMAN.—I think, to some extent, the speakers have misunderstood the whole bearing and object of Mr. De La Mare's paper, and that may be owing to the different mode in which they have been accustomed to regard science. Some gentlemen regard science entirely from a logical point of view, and some of the speakers seem to think that the point of view from which Mr. De La Mare has regarded science has been that position from which science would be regarded by the student of what is called pure demonstrative science, that is to say, he has viewed it as an exact mathematical science. As far as I understood the paper, I must thoroughly agree, in spite of all the logical and scholastic objections, in its view that there is such a thing as theological science. I believe that it does exist, and that it is founded upon a firm basis—nay, a firmer basis than any of the so-called sciences, whether exact or inexact, of the present day. If we were to discuss the metaphysics of the question for a thousand years, we should never be likely to come to a cordial agreement and understanding. We cannot agree, for we cannot decide as to what are to be considered definitions, postulates, and axioms. Mr. De La Mare has pointed out in his paper that theological science is supposed to rest. like mathematics themselves, on definitions, postulates, and axioms; but sometimes it is difficult to say whether certain things are to be regarded as definitions, as axioms, or as postulates. I believe the distinction of definitions, axioms, and postulates in our modern Euclid does not exist in the original Greek. Now, Mr. Row has objected to certain things which Mr. De La Mare has called axioms, on the ground that they were not axioms

so much as they were propositions. But if we go to the axiomatic truths of mathematics, we find that many of them are merely propositions, but are regarded as axioms because they approve themselves to the mind as truths, or because they are incapable of further proof. A good instance of the latter class is the famous 12th axiom of Euclid, which is confessedly a proposition, and requires demonstrating as much as any other proposi-We find that the intellect of man, as far as it has been engaged on this subject, has failed to get a science of geometry which can rest only on axioms; and, therefore, those things which theology would take as the axioms of theology are not more faulty, after all, than some of the axioms on which you have to base the science of geometry. But when you get a little further in mathematics and take up your algebraical methods, you are obliged to assume certain things as axioms, which appear to the uninitiated intellect as hard to conceive as any of the mysteries revealed in the Bible. Take the well-known instance that "something divided by nothing is infinity," "nothing multiplied by nothing is still nothing," while "nothing divided by nothing may be anything." Those are matters which the meta physician never can satisfactorily explain; they are altogether beyond man's comprehension. Students of the differential and integral calculus know that those are but small difficulties compared with others which they meet with in that part of mathematical science. If we turn from the purely demonstrative mathematical sciences to the applied ones, what basis have you for the axioms on which dynamics and mechanics are based? The three laws of motion are the practical axioms of dynamical science. Not one of these laws can be demonstrated by any experiment, or series of experiments. They are deduced from a vast number of facts, from each of which some particular cause of the failure of the law has to be deducted. And what, after all, is the final proof of the truth of these laws without which the problems of pure mathematical science cannot be applied to dynamical science? Why, the correspondence of the observed places of the moon and planets with those calculated on the assumption of the truth of these laws combined with the theory of gravitation! I believe most fully that you can even from the Bible itself, and without going to scholastic theology, take your stand on this, that there is a scientific theology in the Word of God. If there be a weak point in Mr. De La Mare's paper (and it is not unnatural that there should be one), I think it has been in some of those analogies which drew such severe comments from Mr. Warington. But though I believe that some of the illustrations may have been faulty, yet the essential idea is true in I do believe that the visible things in God's creation do manifest and set forth by types and shadows the deep truths of the invisible world. It is, I believe, a very common thought among theologians, and it is one which you will find illustrated by our Saviour's method of teaching. Whenever our Lord wished to convey to the human intellect a knowledge of the deepest spiritual truths, He took His examples from the works of God's own creation, taking, for instance, the seeds sown in the ground as a type and emblem of the word of God, and its effect upon the human heart. How did St. Paul

refute the man who denied the possibility of the resurrection? It was by calling him a fool, and pointing out to him a grain which was sown in the ground, and which sprung up again to a new life. But I quite agree with one thing said by Mr. Warington, that not only is there a remarkable trinity to be found shadowed forth throughout nature, but there is also a wonderful duality, which may be taken as setting forth to us one of those deep analogies by means of which we can only faintly comprehend the union in our Lord and Saviour Jesus Christ of that marvellous duality of God and I am only sorry that I did not put in my pocket before I came here a remarkable paper, now out of print, and printed under a pseudonym by one of our members. It is a parallel between the Athanasian Creed and some of those things which mathematical students are willing to accept as truths, whether comprehensible or incomprehensible. The great objection made by unbelievers to the doctrine of the Trinity, as set forth in the Athanasian Creed, is that it requires a reasonable man to believe things which no reasonable man ought to be called on to believe. Now, Professor Byrne, who is one of the greatest mathematicians, has given the Athanasian Creed, and put side by side with it certain mathematical conclusions admitted by mathematicians. Every one of these mathematical parallels is as difficult of comprehension, and demands as great an amount of faith, as the theological propositions against which they are placed. No one but a first-rate mathematician like Professor Byrne could have found that parallel, and I confess I should like to see it printed at the end of this lecture.

Mr. Reddie.—You propose to append Professor Byrne's parallel between the Athanasian Creed and certain algebraical methods of demonstration; but I think we should pause before agreeing to this; as it should be borne in mind that Professor Byrne believes, and is actually on the point of publishing a book to prove, that many of those algebraical demonstrations are full of absurdities and irrational propositions, which want altogether to be cleared out from true mathematical proof. And if we were to appear to make our theology depend upon an analogy with the demonstrations of algebra, and afterwards to have the first mathematician of the day telling us that those demonstrations are irrational and unreliable, what would become of our theology? Now, I am perfectly persuaded that there is such a thing as theological science, which can hold its ground rationally and logically, as well as, or better than, some of those other sciences which have been referred to. Many of the arguments which have been maintained by Mr. De La Mare. however, are not quite tenable. He says that the definition of parallel lines implies infinity, because they are two lines which continually produced shall never meet. But you may have a definition of parallel lines without implying infinity, as, for instance, two lines which cross a third line at precisely the same angle-

The CHAIRMAN.—I believe Mr. Reddie will find that none of the axioms or definitions of parallel lines substituted for that of Euclid have been found satisfactory.

Mr. Reddie.—Neither is that in Euclid, and hence the existence of these

substitutes. But what I chiefly rose to observe is, that we should lower the science of theology to a very questionable level by introducing an illustration based upon methods of demonstration which belong only to the modern system of mathematics, the accuracy of which is in dispute, and which would not probably have been accepted by the ancient geometers at all, and which are not as precise as those which are found in Euclid.

The Chairman.—I think Mr. Reddie is labouring under a misapprehension as to what Mr. Byrne is doing. Professor Byrne does not wish to do away with the algebraical symbols he has used in his parallel with the Athanasian Creed. All that that parallel is intended to show is, that the greatest calls of the Athanasian Creed on our faith are not greater than what is required by what is supposed to be purely demonstrative science.

Rev. A. De La Mare.—In answer to Mr. Reddie, I will only at present say that what he referred to as a definition of infinity, I only used to point out that infinity was admitted in science to have an existence, although it is beyond our comprehension, and is, therefore, to that extent not "rational." And if we admit infinity in exact science, although we cannot understand or explain it, why should there be any objection to admit it also in religious matters? But you will observe that my voice has quite failed me, and therefore I must beg to be allowed to write my reply to the other criticism on my paper. (Hear, hear.)

The meeting was then adjourned.

REPLY BY MR. DE LA MARE.

In reply to the full and free criticism made upon my paper, I beg to offer the following remarks: - First, I may observe, generally, that the design of my paper seems to have been somewhat misunderstood. I never intended it to be an essay on theological science at large, but, as its title imports, to be on theology as a science; that is, to establish theology to be a science, a truth which current pretensions go far, not only to ignore, but to deny. Hence, when Mr. Row states his preference for a metaphysical system of investigation, and Dr. Irons for the labours of the schools, I am not necessarily in conflict with either the one or the other:—I have controverted neither. have simply passed by both in silence. If, therefore, either gentleman feels disposed to undertake the task of establishing his own position, his doing so would in no degree affect mine, unless it be held that there can be only one mode of demonstrating the same truth, which I am not prepared to admit. The track in either case has been pretty well beaten, and I may be allowed to doubt, especially after the not very remote controversy of Professor Mansel and the late Professor Goldwin Smith on "the limits of religious thought," whether the metaphysical treatment seems to be the best adapted to meet the requirements of our time; and also whether the scholastic theology, either simply revived or modernized, is most calculated to commend itself to the current methods or spirit of scientific men. Dr. Irons tells us that the science of theology from the seventh century downwards has been thoroughly inductive and truly Baconian; and some of the claims, not all. which he advances for the laboured efforts of the great men whom he cites I He knows, however, doubtless better than myself, that this do not combat. system has not always passed unchallenged, nor had it satisfied all minds. even before the Reformation; e.g., Lord Herbert tells us, in his life of Henry VIII., that what especially wrought on that monarch to write against Luther was the contempt he manifested for Aquinas, the "Angelic Doctor." On the general question, therefore, I think I may safely pair off Mr. Row with Dr. Irons: the one sees in the present state of theological science nothing satisfactory; the other, a perfect theology since the seventh century. either position, and it in no way invalidates the independent course taken in my paper, a method not without precedent—meum ante me. (See Cumberland, De Legibus Natura.)

But to come to particulars. Mr. Row demurs to my definitions and axioms: e.g., "God is a spirit"; and, "God is," that is, exists. Now, with all due deference to Mr. Row, taking the truth, "God is," or, "God exists," not perhaps as the exact equivalent for, but as the New Testament phrase corresponding to, the Old Testament "I am," I contend that this is a definition, and that it expresses not merely the truth of God's existence, but the mode, -that He is self-existent. Similarly of "God is a spirit." Mr. Row says this is simply a proposition. A proposition in logic it may be; but a proposition in mathematics needs demonstration. Will Mr. Row supply the proof here? Mr. Row further demurs to the statement as to the portraiture of the Messiah supplied by the Old Scriptures, and says that it gives to the rationalist a vantage-ground. He passes by, of course unintentionally, the hypothetical form of expression used, and ignores the important word "almost," though he quotes both. But, these regarded, I am wholly at a loss to perceive the least advantage that is conceded to the rationalist. Let him seize upon and appropriate it, and what follows but that he must concede the truth of prophecy?—the last position, I conceive, which our rationalists would be content to take up or even tolerate. The lucidity of the Old Scriptures on this point rests, however, on the very highest authority. But for such clearness of statement in the Old Testament, what force had the exclamation of John Baptist possessed, "Behold the Lamb of God, that taketh away the sin of the world"? But for this clearness, why did the Lord Himself chide those who understood not. or who misunderstood, Moses and the prophets, as to the things concerning Himself? Mr. Row's closing objection to the analogical portion of my paper (and I cannot compliment him upon his own selected instance, out of "no end of such speculations," with which he enforces it,) will be best met by my reply to the more detailed and tangible criticisms of Mr. Warington.

Mr. Warington does not tell us whether his objections are more or less numerous than the twenty-six of Mr. Row—a full alphabet of charges—but

he intimates a general disagreement with the paper, confining his criticism to the analogies; to these only, therefore, can I apply myself. I would remark, by the way, that the conclusion drawn from analogy not being an essential portion of my argument, but purely supplemental, it might be withdrawn without prejudice to my plan. However, let us come to the criticism. first demurrer is as to the threefold character of the law of attraction. Warington says this is an extremely disputed point, and his conclusion is that it must be given up. Now, if rightly disputed and proved to be an error, of course it must give way. But is Mr. Warington willing to at once concede everything in science that is disputed? I suspect not. At any rate, I am not, and till his allegation is not only mooted, but proved, the suggested analogy may stand. The next instance is the triple motion of the heavenly bodies, and Mr. Warington truly says, again, the last of the three is "disputed;" and, if so, again we reduce the three to two. I rejoin, Not quite "if so": if so, and proved to be an error, and if proved not to move through space, proved also not to oscillate in space, well and good, and the analogy must be withdrawn; but till then-till disproved, not disputed onlythis too may stand. The next analogy is light; and of the three alleged spectra, Mr. Warington says they are convertible the one into the other, being only modifications of the same force. But separate modifications of the same thing are not identities. The presence of new accidental differences or external qualities effectually forbids us to regard such modifications as identical. I await therefore the proof, not the bare assertion, that there are not really three spectra. But the mention of the luminous spectrum being compounded of three rays awakens not only Mr. Warington's surprise, but his sarcasm. "Such a fallacy, he should have thought, would by this time have vanished from every scientific mind." I submit to the correction, if correction it really be, not however quite assured that even yet we have reached the final truth. Within no very lengthened period of years the doctrine as to the luminous spectrum has passed through more than one phase. Once supposed to present seven colours, the number was subsequently limited to three. Now we are told the number exceeds all limit-"an infinite number." Are we to rest at this point? On the analogy of atmospheric air, the criticism is both as to fact and expression. Atmospheric air, Mr. Warington tells us, is not a compound, but a mixture. Is this distinction technical, or is it solid? If solid, I at least err in good company. Johnson says that a compound is "a mass formed by the union of many ingredients": a mixture is "a mass formed by mingled ingredients." I fully recognize the verbal or numerical difference, but I fail to perceive the exact bearing of the criticism in this place. As to the fact, the history of atmospheric air would seem to square with that of the luminous spectrumit is variable. Originally I believe supposed to consist of only the two gases which so largely preponderate, it was afterwards considered to consist of three. Mr. Warington now tells us that the number is unlimited. Again, I ask is this our resting-place? I would also venture to ask whether this is really the normal state of atmospheric air, or is it not its local and accidental condition? Mr. Warington next asks, respecting water. What is there of triple constitution here? He passes over my qualifying words, "at least in respect of its accidents," the presence of which accidents, as in the case of the solar spectrum, certainly exhibits the three modifications specified, and which modifications I contend are not identities. Next, triplicity in electricity. Mr. Warington says, "I have always understood that electricity is not of three—but of two forms, positive and negative, vitreous and resinous." Granted. Some have even advanced the theory of two distinct electricities. But to look once more a little beyond the one technical use of the word "constitution," Johnson tells us that it is "a system of laws"; and again, "particular law"; and I presume the fundamental laws of electricity are admitted to be threefold—the attraction of bodies in opposite states of electricity, the repulsion of bodies in similar states, and a body in a natural state attracting bodies both positively and negatively electrified. head of triplicity Mr. Warington adds, "We are not told how." True: I merely stated what I believed to be the fact; and in such reticence, if I erred, I erred in good company. When Humboldt speaks of terrestrial magnetism, he simply states the truth as to its "triple elements:" his explanation, however, is elsewhere—viz., that its main character is "expressed in the threefold manifestation of its forces"-something very like characterizing it by its laws of operation rather than by its forms. The next instances to which Mr. Warington demurs are the threefold vital mechanism and the threefold nervous system in the human subject. He says that he utterly fails to see these points. All I can reply is, that others of the learned and honourable profession of which he is himself so eminent a member do see them; and we are only therefore in the universally acknowledged dilemma, "Who shall decide when doctors disagree?" Mr. Warington's closing criticism is upon the expressions in relation to space. He tells us that "before" is a reality, and "behind" is a reality, but "here" is a line; "and what is a line but a thing which has no extension?" Well, I had always thought that "here," as in relation to elsewhere—e.g., "before and behind"—was the space which the speaker occupied, and as palpable a reality as either of the other terms. Moreover, had I attempted to define the junction or separation of the two, I should certainly have not represented it as a "line." Taking man's standpoint theoretically, the extension can only be lineal, and the junction or separation only a point; but taken practically, and man's place is a solid, and the junction or separation must be a solid also. I marvel that Mr. Warington did not, as in the cases already noticed, suggest the unlimited theory put forth by, I think, Professor Sylvester before the Royal Society, in the form of there being n dimensions in space. When this theory is accepted, and when n dimensions, or even four dimensions, are proved, I shall be ready to withdraw the analogy. But Mr. Warington tells us that "a line has no extension." I had always understood that a line had length; and is not length extension? Mr. Warington must forgive me if I yield to the strong temptation to quote his own sarcasm :-- "I should have thought that such a fallacy would by this time have vanished from every scientific

mind." Mr. Warington's argument as to a dual analogy has been amply and most fittingly answered by the Chairman, to whom I feel deeply indebted for his able reply to the various criticisms here reviewed. It can surely never be pretended that because a dual analogy is observable, therefore a triple analogy is weakened. I should feel disposed to uphold the exact contrary. One of Mr. Warington's dual analogies, as against a triple analogy, I fail to appreciate. Mr. Warington points to the animal and vegetable kingdoms;why omit the mineral? For one thing I feel that I owe a debt to Mr. Warington, which I beg to acknowledge: that his entire criticism has forcibly brought to light, and most strikingly exhibited, the fundamental and constant changes which science, in almost all its branches, is undergoing in our day, and its consequent lack of at least one element, stability, so essential to any system which aims either at guiding the human intellect or recovering it from supposed errors. It has thus indirectly contributed largely to my main object—the true estimate and due location of theology as a I gladly quote and most heartily adopt the sentiment of our Chairman :- "I believe most fully that you can, even from the Bible itself, and without going to scholastic theology, take your stand upon this, that there is a scientific theology in the Word of God"—and I venture a further assertion. Dr. Irons, in his criticism, drew a contrast between the scholastic theology and what he termed "popular religion." Now, by the Doctor's own showing, the schoolmen did not begin to elaborate a scientific theology for seven hundred years. I claim for that in Scripture a priority to just that extent. If asked where I find it, I adopt the response to the taunt, "Where was Protestantism before the Reformation?" and reply,—In the Bible. Should my paper be in any measure the means of drawing attention to the subject of which it treats, it will not have wholly failed of its object. And as our discussions I trust have for their purpose to elicit truth, not merely to exhibit critical acumen, I am quite content that I was obliged, by a temporary loss of voice, to allow judgment to go by default when the paper was read; and acknowledge with thanks the courtesy of the Council in allowing me to offer these remarks in writing.