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ROBERT HARDWICKE, 192, PICCADILLY.

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Mr. REDDIE.—I beg leave to explain that the paper I am about to read was not written for such an audience as this. It was delivered in 1852 in the Mechanics' Institute, Southampton Buildings, and it was written on account of a discussion which had taken place there between a Swedenborgian and an atheist, at which I was present, and where I thought the Swedenborgian made but a poor defence indeed of his thesis. When this paper was originally read, I challenged public discussion on the subject, and it was then discussed. I may say that I differ from Dr. M'Cann's concluding words, that "he who denies the existence of Deity is as unworthy of serious refutation as he who denies a mathematical demonstration;" for, to begin with, I have not met many gentlemen who understand a mathematical demonstration who deny the existence of Deity. But if we are to deal with this subject at all, we must deal with those who really do deny the existence of Deity; and the object of my paper was to meet the case of such a person, a Mr. Nicholls, who really appeared to be perfectly sincere. I hope the meeting will remember that, in delivering this paper, I was addressing working men, and speaking with reference to a discussion that had already taken place. I did not cover so large a field as Dr. M'Cann, but where I did travel, I think I went over the ground a little more minutely than he has done. I have not had time now to compress or re-write my paper, so as to make it more suitable for the present audience; I hope you will therefore excuse its simplicity, and consider the class for whom it was intended, the class, perhaps, however, who most require to be addressed upon such a subject.

Mr. Reddie then read his paper as follows:—

*ATHEISM CONFUTED BY A NEW ARGUMENT; OR WHY MAN MUST BELIEVE IN GOD. (Being a Lecture ON NATURAL THEISM, originally delivered in the London Mechanics' Institution, Southampton Buildings, Holborn, on Thursday, 3rd June, 1852, with reference to a Discussion which took place between a Swedenborgian and an Atheist on 11th May, 1852.)—By JAMES REDDIE, Esq., Hon. Sec., V.I.*

[I. **I**N the discussion which took place on the 11th of last month in this hall, on the Being of a God, Mr. N— (the Atheist), contented himself with merely objecting to the arguments brought forward by Mr. W— (the Swedenborgian), who affirmed the existence of a Deity; and, indeed, when challenged to *disprove* God's existence, after at first saying merely that he did *not undertake* to do so, he fell back upon a technical rule in evidence, which he employed as if it were a universal principle, and quite stretched beyond its legitimate

measure, saying, that "he *could not prove a negative*," as if to do so were impossible, and, that, therefore, he could not prove, and should not be expected to prove, the non-existence of God ; but that the whole burden of proof lay upon those who maintain that God *does* exist. A little consideration, I think, will place this in a truer light. Without going into the abstract question as to the possibility or impossibility of proving what the logicians call a universal negative, I will content myself with observing, that the maxim or rule, that a man should not be called upon to prove a negative, is in many cases very properly applied : as, for instance, if a man is accused of a crime, the accuser ought to prove the case against him, and the accused should be in no way bound to prove the negative. It would be unjust were he required to do so, for the law presumes all men to be innocent till they are proved guilty. But even in such a case it is by no means true that a man cannot prove a negative. For suppose the accusation were that some one had attempted to shoot Mr. W—— on the evening when the discussion referred to took place, and that the accused was not really present at the meeting in question, but spent that day and night in Paris, and in the company of friends, you know it would be perfectly competent and easy for him to disprove the accusation—or prove the negative of the proposition in question. But, even in this case, though it *might* be possible and easy for a man to prove a negative, it would by no means be fair or politic that he should be called upon to do so, as a matter of course. It is true the accusation might be utterly false, and he might only have resembled the real criminal ; he might have passed the evening far from the scene of action, but perhaps alone, and he possibly might not be able to adduce evidence to prove his absence—*i.e.* to prove *an alibi*, as you are aware it is technically called. But it is altogether different in argument, where a proposition is affirmed on one side and denied on the other, whether respecting some abstract truth or theory, or some matter of fact, and concerning both the parties equally. If you affirm that there are one hundred persons in this room, and I deny it, it would be just as easy for me to prove the negative of your proposition as for you to prove the affirmative. And, in fact, in almost all propositions the positive and negative may be made to change sides without changing the nature of the proofs either party must adduce : as, I might say there are fewer than one hundred in the room, and you negative that assertion, and say there are not fewer than a hundred. So it is of most questions also, and especially it is so as regards the great and all-important question to be considered this evening. I affirm that there is a God, and if any

one ventures to deny it, he ought to be able to give his reasons for this negative or denial as readily as I on the other side. Nay, more so, for this reason. It was admitted in the discussion referred to that there is a universal, or all but universal, belief among mankind that God does exist; it is also the common belief among those around us, and therefore it would seem incumbent upon any man who ventures to contravene this notion—probably at one time entertained by himself—and to contradict the opinion of the whole world, to be ready with some reason for his singularity, some ground for his change of opinion, some argument or proof in justification of such opinions. And I would beg to observe, in passing, as to this universal consent of mankind, that those nations, or peoples, or rather tribes—for they are quite insignificant in number—of whom men have been led to doubt whether there really was any notion of a Deity entertained among them, are the most degraded, savage and ignorant of our common species—ignorant not only of this idea, and of everything like high moral perceptions, but ignorant of even the commonest arts and conveniences of life. In fact, I think it has only been said (and that, remember, doubtfully) of some few of the most savage of the African and other negro tribes; to whose very imperfect language also it may be owing that such vague notions, as it is most probable after all they do entertain of a God, have not been quite comprehended by their civilized visitors. But if any one, notwithstanding, considers it hard that he should be required “to prove a negative,” as he may still call it, we shall soon see that it is no mere negative he is required to prove, but really an affirmative proposition, or series of affirmative propositions; and considering that he asserts these in the face of all mankind, and tries to upset the faith of the world, surely the burden of proof must seem to lie with tenfold weight upon him.]

2. To deny the Being of a God, is to assert that material or sensible things are eternal, and that this world, which bears evident marks of change, and which is changing continually before our eyes, has, notwithstanding, always been in existence and always will exist. And it is to assert this in the face of, I will not say revelation, but of all the theories of geology and astronomy which, after the latest discoveries of science, have been propounded to the world. To deny the Being of a God is further to assert, that while we see that man can do nothing for any useful purpose without the employment of his intelligence, skill and reason, in devising and guiding his operations,—the senseless matter of this earth, and the unintelligent instinct of the inferior animals can accomplish, without reason and without knowledge, the marvellous works which nature displays, in-

finitely more perfect as they are, than the most perfect works of reasonable man! And it is to declare that we ourselves and this beautiful creation around us,—the earth, the sea, and all that they contain, the heavenly arch above, with its glorious sun, the bright soft moon, and the thousand thousand stars that glitter in the sky, are all the works of chance—nay, *not works* at all, but so arranged in beauty as they are, and so admirably adapted for our use and service, by *chance*, by *accident*, by *nothing*! It is to affirm, consequently, that order, regularity, wonderful adaptation for endless uses, fitness, beauty, light, life, and whatever else we see and admire and endeavour to imitate in nature, proceed from nothing as a cause, from *no* wisdom, *no* love, *no* intelligence, *no* life, *no* science, *no* knowledge—from absolutely a *blank*, from *nothing*! Before a man ventures upon such positive statements as these, is it not incumbent upon him to have some grounds for such strange doctrine; some reasons for such singular and unnatural conclusions? Were one to stand up in this room and say—I don't know its architect; it was built before I was born; it may, perhaps, have always existed; I don't believe it had an architect at all; Would not such a series of propositions astound us? But what is the difference, save in degree—and in infinite degree, no doubt—between a man who would say this, and one who would look on the architecture of the heavens above and the foundations of the earth on which he stands, and doubt that they also had an Architect? If he who believes in God wished to evade the argument, verily he might, with some show of reason, throw all the burden of proof upon the doubter! Reasonably, he might say, show me anything on earth suited for the use of man, of the origin of which I have absolute knowledge, and the operations of which I fully understand, produced by chance or accident, and I may then believe that the other things around me, which have their origin in what we call nature, and whose operations are only beyond my understanding from their very superiority and perfection, are also effects of chance or of some unintelligent necessity! But if I should be counted mad to doubt that this chair, or table, or house, was the work of an intelligent being, much more must I judge myself unreasonable, to doubt that the heavens and the earth, myself, mankind, the inferior animals—all more wonderful than the greatest triumphs of human art and man's intelligent skill—are the works of an infinitely wise and omnipotent, intelligent Being! Surely the analogy of all I do know is in favour of ascribing to an Intelligent First Cause the various effects I see around me, and the burden of proof ought to lie on him who ventures to say that the world could exist of itself, and all its admirable arrangements come of *Nothing*!

3. But, I have made these preliminary remarks, with no view of taking advantage of the admitted fact, that I have the all but universal consent of mankind agreeing with my own convictions on this subject. I do not shrink from giving the reasons for my belief, any more than I would wish to shrink from giving my reasons, had I any, for *not* believing. When I have an opportunity, for instance, I am always glad to tell a Roman Catholic why I *don't* believe in Papal Infallibility; *i. e.*, to prove the negative of the proposition that the Pope *is* infallible, just as readily as I always am to tell an infidel why I *do* believe the Christianity of the Bible; and to-night I am ready to give my reasons for believing that the world is the creation of an Intelligent First Cause, *i. e.* God; or, to prove the negative of the proposition that we ourselves, and what we see around us, are all the work or production of chance or unintelligent necessity, *i. e.*, of no directing mind or supreme intelligence.

4. In the discussion to which I have already referred, and the unsatisfactory result of which induced me to come forward to deliver this lecture, Mr. N——, on being asked what proof would satisfy him that God does exist, placed his hand upon the tumbler on the table before him and said, "A proof like what I have for the existence of this glass, which I can see and touch." The reply he received to this was painfully inadequate; and I shall now, therefore, give my answer to this demand. Could you, I would ask, convince a blind man that colour is as real a thing as sound? or a deaf man that sound is as real and sensible as the things he sees and handles? Could you convince any man that he does not feel pain because he cannot see it? Or, do you believe that a dead man is alive, because you see the material body as it lies organized before you, only wanting the invisible part, the life, which cannot be seen? How, then, can it be reasonable,—and this is a question of reason,—to ask the same proof for the existence of two things, which, in their nature, are utterly different? And this leads me, to what ought to be the real beginning of the question, namely, to the definition of what we mean by God; for, it is only if I define God to be something material or sensible, that I can reasonably be asked for such a proof of His existence as would be required of me in order to prove the existence of a *material* or sensible object. But I think it pretty well known that in England the Deity is *not* believed to be a stock or stone which can be touched or handled. And, while I wish to show you how unreasonable it is—how almost like trifling with the question—to ask for the *same* proofs of God's existence, as you have for the existence of what you can see and touch; and while I am bound also to say, in justice to Mr. N——, that he afterwards added, that "much less proof" would satisfy him; I hope to be

able to give you, not less, but much stronger proofs that God exists. I will appeal; if not directly to your eyes and senses, that you may see and touch the Eternal Cause of all things, yet, desiring you to make good use of these, to your better and nobler part, to your intelligence, reasoning powers and understanding; and (to revert to the tumbler) I will give you reasons for believing that God exists, and is your and my Creator, as strong, at the very least, as you have for believing that this glass was made and fashioned by an intelligent man, which I take for granted you do believe, even though you may never have seen glass-blowing in operation, and know not either who made this, or where or when it was made. *That* is the kind of proof Mr. N— ought to have demanded; that is the kind of proof he now shall have. I take for granted then, though I might fail to be able to prove what particular man made this tumbler, or what particular manufactory it came from, nay, though it might really be absolutely impossible for any man but the actual maker to do so, still that there is rational proof, or probable evidence, to satisfy all of us that this glass really was made by some intelligent artificer, not by itself, and still less by nothing, by chance, or by silica and potash, wind and fire, getting somehow accidentally together and producing it. And if so, if you admit this, as I am sure you must, I maintain that the works of nature around us, though they do not furnish a particular revelation of God—such as that which the Christian and even the Jew glories in possessing,—still do furnish rational proof that the world is the work of God, *i. e.*, of an invisible and intelligent Power, Who is the great First Cause, the eternal origin of all things.

5. This, then, is our definition of God: an invisible, intelligent Being, the First Cause or origin of all things; and, this definition being given, I am sure no sensible man will ask for the same proof for the existence of such an invisible Being, as for the existence of a piece of senseless matter which itself has no perceptions, and can only be seen and felt. We believe in the existence of our own invisible, intelligent spirit. We do so because we are mentally conscious of it, not because we can see it with our eyes or exhibit it to the senses of others to be seen and touched. Do other men believe us to be intelligent beings? Only in one way *can* we exhibit this invisible intelligence palpably to them—namely, by showing *its effects*; yet this evidence satisfies our fellow-men that we possess it, and that it is a real existence, though not sensible; and we, in like manner, believe that other men are also rational beings endued with intelligence; not because we can see or handle their invisible minds and spirits, but merely because we see the effects

of their intelligence, and judge, therefore, of them as they of us. Well, *and why not so of God?* Are you a carpenter? Then, in making a door or box, you know that you require to cut the wood so as to fit the parts one to another, and the whole for the object you have in view; and to do so, you require to be furnished with certain instruments or tools, also devised and formed by intelligence, for measuring, and planing, and cutting, and fixing the materials you work upon. And, conversely, when you see a suitable instrument, or find a box or door so properly fashioned and fitted as to answer its purpose, you conclude it was made by an intelligent workman; and if you see him in the act of working, you conclude he has intelligence and skill, according to what he exhibits of these in his handiwork, *i.e.*, according to their *effects*. And, by your experience in your own particular craft, and the exercise of your reflection and intelligence, you are able to carry your judgment beyond yourself and your own kind of work, and to judge that skill and intelligence are also necessary in making all other works of art and skill, as the clothes you wear, and still more—from its greater complexity of construction and superior functions—the watch you carry in your pocket. And, according to the complexity of the work and the beauty of the workmanship observed in any article of common use or piece of mechanism, you can judge to a great extent, though the craft be not your own, of the amount of skill and intelligence required to produce what you see. Nor have you any difficulty (which is a point of consequence) in discriminating between what is the result of chance or accident in what you see, and what has been devised, intended, and arranged by skill and intelligence. For instance, when you see the broken flints lying upon a newly-macadamized road, you can judge at once how much is intended in what is before you, and how much has been left to chance. You know at a glance that the stones have been laid down so as to cover a certain space on the carriage-way, and only there, *intentionally* by *intelligence*; but as to the disposition of each particular piece of stone, you see at once that that has not been cared for; that they have been left by chance, as it were, to fall into places for themselves. But when you look, on the other hand, to the causeway, or the pavement, you observe, also at a glance, that there, not only are the stones laid down so as to occupy a certain length and breadth, and so to cover a certain space; but you see, from their regularity and proper adjustment one to another, that each particular stone has been so laid down in its own proper place, *not* by chance or accident, but *intentionally*, with a purpose, and under the superintendence of an *intelligent, thinking mind*. Then, to compare the stones jumbled together

on the carriage-way, in no order and without regularity, or even the causeway, or pavement, with a fine piece of mosaic work, in which the pieces of stone, all of different colours, are so ingeniously placed and arranged as to form a picture which looks as if painted by an artist with the finest brushes and colouring; who that has any sense—what rational being—I ask, can doubt for a single moment, that purpose, intention, and design, with the greatest intelligence and mental exertion, as well as the greatest manual dexterity and skill, were requisite, in order to produce such a finished and beautiful work of art? The jumbling of material atoms together, by some unthinking, unintelligent energy in nature, which some philosophists have dreamed of, could at best but have produced some such result as we find when stones are cast carelessly down on the highway; but what could arrange such atoms (granting for a moment their existence) into the mosaic beauty of the landscape which nature exhibits to our eyes and minds, save Omnipotence, combined with infinite skill and intelligence? Few, or only a few, I suppose, of those here present but had an opportunity of seeing the Great Exhibition of man's skill and intelligence last year in Hyde Park;\* and few, I should think, but concluded that the greatest skill and intelligence were required in the architect and builders of the enormous building which contained that wonderful display of man's intelligence and labour. The more intelligent and better educated, too, among you were, unquestionably, at a glance at that building, or even upon hearing *what was* built or proposed to be built, aware that science or a knowledge of principles—the highest kind of intelligence save intuitive reason—would be absolutely requisite in the framers of such a complicated structure, in order to insure the perfect adaptation of part to part and of each to the whole, and to secure the necessary strength in the mighty fabric. You would also at once perceive that one mind, or a communion of minds, must have schemed out and planned the whole, and superintended its fabrication. You would laugh at the man who would say, that the hundreds of workmen there employed, were not guided and controlled at every step, according to a unity of design, a distinct specification, a general idea or plan; and you know, that this idea, or plan of the whole, must have existed anterior to the making of the several parts, and have been constantly kept in view in their final arrangement and fixing together. In short, you *know*, that *intelligence* must necessarily have preceded and presided over that great work, as indeed over *all works* of which you know anything; and you know

\* The first Great International Exhibition of 1851.

that, without such intelligence, the building could neither have been planned nor put together by men, however physically strong; nay, even though the several parts had been somehow brought into being, fashioned by chance, and laid down ready made to their hands! Just so, exactly, is it respecting this greater exhibition, and that more marvellous display which nature unfolds on every side, of infinite intelligence and skill in the building of this round world and the brilliant crystal canopy of its glorious firmament. "The heavens declare the glory of God, and the earth showeth His handiwork." "Their sound has gone forth into all lands"—preceding all other revelations,—“and their words”—true rational discourses—“unto the ends of the world.” “That which may be known of God,” is thus manifest in all creation, “even His eternal power and godhead,” His invisible power and intelligence is thus clearly seen around us, “being understood by the things that are made”; ay, and not only His intelligence and power, but His goodness also, “in that He sends us rain in due season and fruitful seasons, filling our hearts with food and gladness,” and, as a rule, exhibits before us the creation filled with happiness and enjoyment, and still bearing its original stamp of “very good,” notwithstanding its subsequent defacements. But here I would beg to observe, that though I have, and purposely, just made use of some Scriptural phrases, I am here not building any argument from revelation. That there are strong arguments to be derived from this source, serving especially to clear up moral enigmas, and make plain the ways of God to man, I know well; but to prove the BEING of a God, we require no argument from Scripture which does not exist independent of Scripture; and these passages which I have adopted to express some of my ideas, I have quoted, because (independent of their innate beauty) they themselves declare that the evidence deducible from the works of creation sufficiently establishes *this* doctrine. And, I must say, I felt distressed above measure to hear it asserted by one who had undertaken to discuss this question, that “man could know nothing of God without revelation!” Why, my friends, you can’t entertain the *notion even* of a revelation in your minds, without believing that there is a God. “A revelation!” A revelation from whom, and of what? A revelation *from* God and *of* God, to be sure; not a revelation coming from a nonentity, a blank, a nothing!—What success, then, can a man hope for, who, in his mission to spread the knowledge of God, presents himself to the atheist, saying, You don’t believe there is a God, and I can furnish you with no reason for believing in one; but, now, only listen to His revealed will, as set forth in this volume! The

answer is obvious,—if your book be a revelation of the will of a Deity, begin by telling me what you mean by God, and why I should believe in the existence of such a Being; for, if there be no reason for believing in His existence, there can be no reason for believing in His will, or any revelation from Him. “Before a man can come to God he must believe that He is;” before there can be a revelation of God, there must needs be a God; and before I can reasonably be expected to listen to a revelation purporting to come from God, I must have some reason for believing that He exists.

6. I have no intention, in this lecture, of enforcing, further than I have done, what is called “the argument from design,” in favour of the Being of a God, *i.e.*, the argument that there must have been an intelligent designer of things visible, deduced from the marks of design we can trace in the works of nature around us. The argument is an interesting one, and has been admirably treated by Paley and his commentators; but, to some extent, it involves a *petitio principii*, a begging of the question, or what is almost tantamount to it. Inasmuch as, if we find men who see, and acknowledge that they see, evident marks of *design* in nature, they must of course admit, by the very terms of such acknowledgment, by the very meaning of the words employed, that there must have been a *designer*, the author of the *design* they admit that they perceive. But I think there is a simpler and stronger proof for the Being of a God, which has also this advantage, that it can be adduced to those who do not see, or do not admit, that there are these evident marks of design in the things we see around us. It begins a step further back, and leads to the discovery of intentional act, even if it stops short of that of ultimate design, which the other requires to prove; and it has the advantage of using the simplest facts of nature, which lie under the observation of the least reflecting, and looks at these in their commonest aspects, instead of selecting the more difficult and complicated phenomena as the basis and foundation of our reasoning. I think the very order, regularity, fitness, perfection, life, motion, and, I might add, the very existence of material things, go to prove an eternal intelligent author, superior to the things themselves, even if we fail to observe their ultimate purpose, design, or “final cause.” We find neither *order* nor *regularity* produced by what we call chance, as far as we can make experiments with the things in our power; as has already been illustrated in a matter so very simple as the way in which stones are laid or cast down upon the highways. Still less do we find any *fitness* in haphazard endeavours to accomplish anything; nor can we do anything to any purpose with

our ordinary tools and instruments *except bungle*, unless we take pains in our works, and use our intelligence to guide our operations. Nor do we ever arrive at *perfection* in our own works, or any approach to it, without the greatest labour and most skillful as well as intelligent painstaking. Neither can we conceive that *life*, which appears and disappears in material substances, can come from the dead substances themselves (and still less from *nothing*!) without some original living power, which must have bestowed it, and which enables it to perform the marvellous functions it fulfils. Then as to *motion*, we know but two kinds of it in material things: motion proceeding from life or internal energy, and motion produced by external force or mechanically. Let us discard the former altogether, as already glanced at in our allusion to life, and consider that alone which is produced by power applied from without, or external force. When we see an object suddenly pass through the air, we at once, as rational beings having some experience of natural things, conclude either that it is a bird or other animal, moving spontaneously by some locomotive power or life within it; or that it is some machine, constructed by mechanical skill to move artificially in the air, by some kind of mechanism or implanted energy; or, lastly, that it is something, having no capability of locomotion in itself, natural or artificial, projected by some living agent or external force, as a stone thrown from a sling, or a ball fired from a cannon; and, in either case, an invisible will and an intelligence are necessary to have produced such an effect. When I hold a ball in my hand, you know its natural tendency is simply to fall down to the earth; it has no power of any other motion, being inanimate, dead matter, incapable of thought or will. Well, then, if you see it moving through the sky, what—as a rational being—*must* you conclude? You cannot for a moment think it has moved in that way of itself. Do so; and who would believe you sane? Well, then, let us raise our thoughts. Instead of a little ball, which we ourselves can project in the air, let us turn to the moon, and regard its motion round this earth, and say, What *must* we conclude regarding it? That, as the poets have it, it literally *walks* through the clouds of heaven? But where, then, do we find its feet, or trace any symptoms of its functions of locomotion? Or what footing can we imagine it has on which to tread in the expanse of the firmament? I leave it boldly in the hands of all men; there is but *one* rational answer: the moon moves in her stated course by some invisible power or law, and in accordance with some will, which she herself possesses not. If we reflect, we cannot but conclude, that, as the motions of our own bodies are produced solely by the life and

power and will within us, so the universe we behold surrounding us, in which we observe inanimate things, equally with the animated creation, in a continual state of motion, must be animated, as a whole, by some marvellous life and power and will; and this is what we mean by God. For, when we rise a step further, as we are compelled to do if we allow our reasoning powers free scope, and consider, not the mere fact of life and motion only, but also the *order* and *regularity*, the *fitness* and *beauty* and *perfection* of the things we see and of their motions, we cannot but conclude that this animating will, which moves and orders all, must be supremely wise and *intelligent*. We cannot imitate such order, regularity, or perfection ourselves, in any degree, without the exercise, not only of will and intention, but also of skill and intelligence. We know, *if we know anything*, that it could not have resulted from chance—from *no* presiding intelligence! We feel that it must be the work of something besides, which we see not; of something analogous to our own will and intelligence. We feel that life pervades the universe; that nature “lives and moves and has its being” in some invisible, intelligent power;—and that is God!

7. Nay, I descend a step further, and maintain, that even the *existence* of the commonest material thing is an argument for the existence of the Deity. Let a man take in his hand, not a watch, as is supposed by Paley in the famous introduction to his work on Natural Theology, but the commonest piece of matter, a mere rough stone,—What may he not deduce from its wise contemplation! Is it a living thing, like himself? No; it seems passive in his hands, appears to have no will; it remains where it is placed, betrays no sign of feeling when pressed, exhibits no organization to lead him to conclude it is aught save simply inert matter. Is that all? Leave it free, now, in the air without support. It falls! Why? We concluded it had no will; by what influence, then, does it move in falling? Upon lifting it again, we recollect that, after all, it does seem to have *one* will of its own; it presses downwards to the earth, and we feel what we call its weight upon our hand. Is it, then, are we now to conclude, a living thing? We throw it up in the air; it obeys the power we exert upon it; it rises, but its motion gradually decreases; it is poised for a single instant, and then again it begins to fall, and falls to the earth, where it remains inert, as before. Dead matter, again, we exclaim! It has no will of its own, it is incapable of any choice; and it is, it only can be, under some invisible influence, not its own. Then, when we proceed to compare it with other material bodies, and find them all, in various different degrees, however, influenced in like manner; and see that it is to this we

owe the stability of the earth, and the regular appropriation in their several places of earth, water and air on this globe; here again we are forced to rise to the appreciation of the manifest truth, that this unseen, all pervading influence is applied upon principle, in regular order, under law, and not by chance; that the will of God, as our own, in fine, is determined by *intelligence*.

8. And now, that the subject has led me to refer to one of the most simple material objects, I will make a few observations respecting the existence of what is called, abstractedly, *matter*. Mr. W—— correctly stated that the existence of matter itself had been denied by some, and instanced Bishop Berkeley as one who notoriously did so. This, however, was questioned by Mr. N——, who said he did not believe that Berkeley meant to deny the existence of matter at all. But these contradictory opinions might have been prevented by a *definition*; for we shall see that it is quite possible that both parties may have been right, according to their own sense of what they were talking about. If by *matter* was meant all sensible objects we can see and feel around us, certainly Berkeley never denied that these things do exist, sensibly as they appear to do, and precisely as we see and feel them. But if by *matter* is meant some general material foundation or substratum in the objects, besides what we see and feel,—any substance (that which *stands under* these sensible forms), such as the Aristotelians believed in,—and that this substance is an eternal matter, or *materia prima*, common to all material things, while the sensible things we do see and perceive, are but the forms or accidents which, as it were, cover and clothe this supposed substratum of matter, this Berkeley did deny; and, when we clear the ground a little, and explain what we mean thoroughly, I doubt whether any one in this room will venture to profess he believes that there is any such matter or substance in existence.\* Indeed, I think it would be useless to argue with a man who denied the existence of what was visible and tangible before him; but, though I must not diverge into an examination of the great argument as to our mental perceptions, pro-

\* That I am right in this representation of Bishop Berkeley's views, will best be seen by the following paragraph from Part I., § 35 of his *Principles of Human Knowledge*. He writes:—"I do not argue against the existence of any one thing that we can apprehend, either by sense or reflection. That the things I see with mine eyes and touch with my hands do exist, really exist, I make not the least question. The only thing whose existence we deny is that which philosophers call *matter*, or corporeal substance. And in doing this [he not unwittily adds] there is no damage done to the rest of mankind, who, I dare say, will never miss it."—(Wright's ed., vol. i. p. 99.)

pounded by Bishop Berkeley in support of his theory of what we call material existence, I would wish, with your permission, to have a short hunt after this *hidden* "matter" of the universe. How shall we first of all describe this abstract and, as some will have it, eternal matter? Shall we call it hard or soft, hot or cold, visible or colourless? If *hard*, then is it in the soft air we breathe? And can we, with propriety, say that the substance or substratum of air is *hard*, while the air itself is soft, fluid, and yielding? If, again, we say this abstract matter—common to all sensible things—is *soft*, can we conclude that it forms the substratum of the diamond, or of the solid rocks and mountains? If so, what gives them their solidity and hardness, if essential matter itself does not, and if abstract matter or substance be something *soft*? Or, again, is it *hot*? Then, is this abstract matter, which is *hot*, the substratum of ice and snow? And are we to conclude that, though we know that heat dissolves some things and resolves others, formerly hard, into attenuated air, or gas, that nevertheless *something hot* is the substance or matter of this solid world? Or, shall we say, it is not hot, but *cold*? If so, as we cannot say that cold exists in fire, are we to exclude fire from material things, and say that in fire there is none of this common matter? But then, when we remember, that although cold does change thin vapour into the denser fluid water, and renders fluid water hard and solid, yet it only rarefies the air and adds not to its solidity; and moreover, while we were driven to admit that heat—which tends to dissipate fluid and liquefy hard bodies, and make even solid things evaporate into gas and air—could not very well be considered the abstract matter or substance of material things, we are now equally puzzled with cold; for we find, by adding cold to substances, their bulk is frequently decreased, so that the more you add of this essential matter—if cold be so—the less the material object becomes; but not even that invariably, for water, when frozen into ice, instead of becoming contracted, like metals under the same influence of cold, anomalously expands! So that, if cold be abstract matter, by adding it to water, the water increases in bulk and lightness, but added to metals, they grow smaller, and, in proportion to their bulk, heavier; which would seem to prove, if we admit weight as any criterion, that cold neither gives nor takes any material particles from bodies, and therefore cannot in any sense be regarded as essential matter! Besides, I may just observe, what doubtless many of you know, that the chemists of our day teach,\* that cold is a mere negation—the absence of heat,

\* Or have taught, till very recently.

or caloric—just as darkness is a negation, being the absence of light. Well then, if you adopt this theory of cold, notwithstanding the impenetrable solidity it imparts to water and other substances, you cannot for a moment entertain the notion that cold—a mere “negation,” a nothing!—has any claim to be regarded as the substantial matter of the universe! Or shall we say that matter is *colour*, or, if I may so speak, the *visibility* of things? If so, do we conclude there is more matter in the dewdrop when it sparkles gem-like in the sun, than when it lies scarce visible under the shade? But if colour be abstract matter, then in darkness it disappears! and the glorious light, we must conclude, though it seems the most immaterial and ethereal of material things, to be the most material and substantial of all! Besides, if we regard colour as anything peculiarly material, we contradict the almost universally received opinion that it is only a secondary quality,—an idea of the mind that perceives it, rather than anything in what we see! While, if we say that matter must be colourless,—what is this but to say, that it is *invisible*!—a fact, by the way, I think, we must admit, in another sense we really knew, before we began this search to discover it! .

9. We shall then have to conclude, that this well-known and, as some would have it, universally-admitted existence, this essential and abstract matter, this substantial substratum of all things visible, is neither hard nor soft, nor hot nor cold, and that it is absolutely colourless or invisible; and yet, that it pervades all things, and is a real existence! It has been said, that “solidity and extension are necessary predicates of matter”; but where now is the former—the *solidity*? and, as to the latter, is not extension a predicate more especially of “free space”; and what, pray, is free space, but—*nothing*? What abstract matter, then, do you believe there is in existence, besides the visible, sensible forms or things which we see and touch themselves? Remember, we are not denying the existence of material things, which we see and feel, but of some unseen material substratum, said to be common to them all. We are not denying the existence of material substances, in the mere ordinary sense of the word substance; but of any one eternal matter, or common substance, of which all visible things are made. We are not denying that this table is made of wood, these walls of brick and mortar, or these lights of a union of gas and caloric; but we are denying that the wood, brick and mortar, gas and fire,—and I may add to the list of incongruities wholesome food and poison,—are all made of the same common substance: we are denying our belief in a matter which is colourless, and therefore cannot be seen; not solid and therefore cannot be felt; and neither hot nor cold! but which, while mis-

called matter, is, when described and searched after, found to elude our every sense, and really to be, if an entity at all, a *spirit* and *immaterial*.

10. But perhaps the consideration of such subjects may not be familiar to some of you, and you will naturally fall back upon some previous vague idea, as to matter in the abstract, associated as it is, in all our minds, with the idea of something *solid* and producing *solidity*, as contra-distinguished from what is ethereal or spiritual. Let us, then, make one other endeavour to get at this substantial matter, and see if we can trace any necessary connection between material particles and solidity. We shall soon see, I think, the groundlessness of this common idea. In fact, I shall be obliged to maintain, with Mr. N——, that unfortunately nothing is more common than for men to have ideas about fancied somethings, which in truth are real nothings ! We require the very simplest apparatus—anything solid will do, if only not too strong and solid for us to operate upon. Let us take a strip of glass cut from the edge of a common window-pane. You know that while we try to bend or break it, it offers a strong opposition to our efforts, and if we endeavour to put our finger through it, it opposes a solid resistance ; or if we bend it slightly, it soon recovers its straightness when we cease. Now, is this elasticity, resistance, or solidity, owing to anything material in the piece of glass ? Is it the abstract matter displaying a will of its own ? Suppose then we break it. In doing so, is a single material particle abstracted from it ? Would it weigh less now than when whole ? And, if we continue to break it up into small and smaller pieces, would they, when laid in the scales, weigh less than the single piece of glass did when whole ? I mean, will any one assert that material particles are abstracted by dividing the glass into pieces or even into powder ? No one will say that. Well then, where has its solidity gone ? If we join the broken pieces as they were, they won't adhere—the elasticity, the solidity are wanting ! To what, then, before it was broken, did it owe this force of resistance and elasticity ? To something in it *material* or *not material* ? *Not material*, we must admit. For when we grind the glass into sand, we still have all the material particles—none lost—but where is then the impenetrable hardness and solidity which once pervaded them, and made them one whole ?—This has brought us to a conclusion which many of you may be aware has been arrived at in other ways, and is laid down generally by philosophers,—namely, that hardness or solidity, though one of the “ *primary qualities* ” of bodies, in contradistinction to colour and other “ *secondary qualities*,” as they are called, is yet *only a quality*, and nothing

itself essentially material or substantial. Here, then, is another natural paradox. Hardness or solidity, which we naturally consider the most material and substantial characteristic of material things, is, when we reflect and examine, nothing really material at all! Glass, when formed and joined in a certain way by means of fire, and then allowed to cool—for the cold is as necessary as the heat, you know, to produce the solidity—has certain qualities of hardness, solidity and elasticity; but these qualities it has as a whole, only from *some law* which regulates the cohesion of its particles—“the attraction of cohesion” it is scientifically, or rather technically, called—(but if by attraction we mean “drawing together,” and by cohesion “sticking together,” and translate the phrase, it will stand, “the drawing together of that which is sticking together!” and, you will agree with me, this technical phrase adds little to our ideas on the subject,) while the same material particles, none wanting recollect, when broken up and separated, lose all these solid and substantial qualities, by merely separating one part from another, by taking nothing material away! The hardness, then, you observe, the solidity, the elasticity, all that opposes obstacles to the penetration or action of other material things when brought into contact with it, is produced only by *some law* which gives the particles of glass these properties when united or fused together in a certain manner. This *law*—the expression of the *word* or *will* of God—is the *true* substance!

11. But I will illustrate this point by a work of man’s skill, not so subtle as this wonderful effect of God’s law which we call nature. You will please to keep in mind that all solidity, or resistance to penetration, is merely the preventing of any other material getting between the particles of matter, which, *when penetrated*, as we call it, are only pushed aside, as a knife divides particles of bread or wood, and as your finger may particles of sand or clay. We can have nothing simpler than a cane-bottomed chair. Observe the texture formed of the cane; it serves as a substantial support to the person who sits upon it with all his weight; it offers resistance to the penetration of your hand when you press upon it; and you are aware that this strength or power of resistance is owing merely to the way in which the strips of cane are woven together and made to support one another, and which prevents them moving aside at every touch, as they would do if not thus artfully crossed and woven. We have another illustration in the texture of the clothes we wear. In them we have strong materials, difficult to tear, and which would resist to a great extent all the strength by which we might endeavour to push our finger or hand

through the texture when stretched out; and these strong fabrics are made of the softest materials—of cotton, or wool, or the gossamer tissue of the silkworm,—which when untwisted and unwoven offer no resistance to pressure or penetration, and are liable to be blown hither and thither and scattered by every breath of air. But if any of you have difficulty at first in seeing the strict analogy in this illustration, in which the tissue of cloth and a plate of glass are compared, a *mechanical* with a *chemical* operation, it may be made more plain by considering the common process of freezing, with which all are familiar. When the cold commences to weave its glassy covering on the surface of the water, I dare say you have all observed the threads of ice which are shot across the water in every direction, at first like some fancy-patterned cloth-work, till the process is continued so long that they press close upon one another and cross and mingle together and fill up every interstice, when at last the whole assumes the appearance of a solid mass. To return; nothing is added to the wool, or cotton, or silk, (*i.e.*, the manufacturer need not and *ought not* to substitute paste or gum for skilful art and workmanship,) only the same material particles or substance being artfully joined and weaved together; and see the effect! So it is also with the ice, and so with the glass, only the process there is the finished work of nature. Fire is, as it were, the carding-machine employed to mingle the raw material, the blowpipe is the loom, cold the weaver's hand, and a sheet of thin, transparent, but hard and elastic glass the admirable texture!

12. So here again—and almost without intention—we find ourselves naturally brought to look away from material or sensible things, to something beyond, not material, but not the less real, active and intelligent: “from nature up to nature's God!” Yes! in diving beneath the surface to trace this *materia prima* of Aristotle, this fancied eternal matter or substance, we find that Protean-like it disappears as we advance: it has no shape, nor colour, nor solidity, nor heat, nor cold; it can't be seen, nor felt, nor heard,—and therefore, not very well conceived at all. And we have found that *solidity*, that which is bound up with the very notion of all that is substantial and enduring in material things, is really a mere *immaterial quality*, sometimes produced by cold, and that said to be a mere “negation;” and we know that the solid hardness of the ice-rock disappears before the genial warmth of the sun, and that by greater heat we can evaporate even stones and iron!—Verily the poet only philosophizes, and anticipates the deductions of scientific reasoning, when he says the substratum of all visible things is nothing—*i.e.* nothing material, substantial, and unchanging!

The wand of Prospero seems only but to foreshadow the eventual fiat of the Great Magician of nature, by whose admirable skill and intelligence this fair creation has been brought into visible existence. And we can well anticipate the time when *our* last act shall come; when the curtain must fall; when "our revels here shall be ended," and when we shall truly find behind the scenes, that the real "actors were *all spirits*"; when

"The cloud-capp'd towers, the gorgeous palaces,  
The solemn temples, the great globe itself,  
Yea, all which it inherit, shall dissolve;  
And, like some unsubstantial pageant faded,  
Leave not a rack behind: We are such stuff  
As dreams are made of, and our little life  
Is rounded with a sleep."

13. But, to conclude: for our subject requires us, if but for a moment, to return to our argument once more. Amidst the continual changes in material things which we see around us, do we really find no other kind of thing, also in existence, more stable in its character, more real and apparently enduring?—Let us regard the Microcosm, or little world of man,—ourselves. Our hair grows and is cut off, the material particles of our bodies waste and are evaporated, and fresh materials are taken in by us as food, and partly assimilated by our bodies, again to be thrown off and evaporated, and partly cast away as incongruous and incapable of assimilation; and, to such an extent does this process of continual change take place, that physiologists have calculated, that in seven years' time the whole matter or visible portion of our bodies is utterly different from what it once was! But does our identity undergo any change the while?—Are we not the same men because the matter, (not the invisible non-entity so called, which we have already disposed of, but the *matter* we see and feel around us,) the flesh that clothes our inner-self or spirit, is not the same? Do we,—the true man, the thinking soul, for it is what thinks that really is ("cogito, ergo sum"),—Do we, I ask, lose anything really pertaining to ourselves, to the rational soul or understanding mind, when our fleshly covering is thus changing and leaving us for ever? Or does our unchanging mind gain power or any increase from matter; does it feed, upon the material elements which supply our bodily wants, in the processes of eating and digestion? Or, will any man deny the existence of this invisible part, which thinks, and reasons, and remembers, and wills, and retains its identity; and maintain but the existence of the continually changing, decaying, corporeal frame, in which the spirit temporarily resides? It is true our spirits are invisible. I

cannot see yours and you cannot see mine; but have we any doubt of their actual existence and reality? It is true, I can hear your voice, and you mine; but is *that* anything real and substantial?—In a moment it is, and is not!—It is true I see your bodies, and you mine; but in seven years hence, we are assured, none of us could see the same bodies in one another; and are we, because they are *now* visible, to think these bodies which, even like the momentary sounds of the voice, will also thus pass away, are more real than the living souls that inhabit them. No; we cannot doubt our soul's existence! *We are conscious, therefore, doubtless, we exist.* We reason, and reflect, and will in accordance with our rational cogitations; our bodies obey our souls; and thus our intelligence and will produce certain outward effects—as intelligible discourse with our mouths, and skilful works by means of our hands; we see the same operations performed by other living beings *like* ourselves, and we rationally conclude that they are intelligent, living beings, as we are. We see the inferior animals, endued with life, also like ourselves, but, unlike us, incapable of speech or rational discourse, and unable to perform anything analogous to man's performances; while, on the other hand, we find, that, by a certain natural energy which we call instinct, they can—manifestly without intelligence of their own, and without teaching—do some few things more perfectly than even man, with all his intelligence, could do; and I will only instance the little insect the bee, whose manufacture of wax and honey, and whose exhibition of the honeycomb in its hive of sweets, is *its* admirable palace of industry! I say, we see the operations of this instinct in the inferior creation, and cannot ascribe it to any science, or knowledge, or ratiocination in the inferior animals themselves; and to what—to whom—as ourselves rational beings—must we needs ascribe it? I think I need not answer the question! Then, we look farther, as we said at the commencement, to the motions of the inanimate creation, to the glorious architecture of the heavens, the majestic course of the moon and planets with their satellites round their respective centres, the wonderful beauties and perfections of the vegetable world, and the surpassingly wise provisions in all the chemistry of creation, for the watering of the thirsty earth, the purifying of the corrupted air, the reinvigorating of animal life, the healthful enjoyment of all nature:—

We see

“The clouds consign their treasures to the fields;  
And softly shaking on the dimpled pool

Prelusive drops, let all their moisture flow,  
In large effusion, o'er the freshened world."

\* \* \* \* \*

We see

. . . . "Heaven descend  
In universal bounty, shedding herbs,  
And fruits and flowers on Nature's ample lap !

\* \* \* \* \*

And, while the milky nutriment distils,  
Behold the kindling country colour round.

Thus all day long the full distended clouds  
Indulge their genial stores, and well-shower'd earth  
Is deep enrich'd with vegetable life ;  
Till in the western sky the downward sun  
Looks out, effulgent, from amid the flush  
Of broken clouds, gay shifting to his beam."

\* \* \* \* \*

Then

. . . . "Night succeeds,  
A softened shade, and saturated earth  
Awaits the morning beams, to give to light,  
Raised through ten thousand different plastic tubes,  
The balmy treasures of the former day !"

(Thomson's *Seasons*, Spring, p. 3.)

14. Need I ask, are these the works and arrangements and operations of dead matter, without intelligence ; of chance ; of nothing ? or of a Being, supremely good, wise, and intelligent ? Has this rapid, and—as I feel it to be—most imperfect review of a few, *very few*, of the wonderful facts continually before our eyes, and a slight analysis of these, served, or not, to lead us to one decided and unwavering conclusion as to the Great First Cause ? Is there an Atheist, is there even a sceptic, who will deny or can doubt that a *God exists* ? Nay, do you not rather feel, that even the language of ordinary poetry is inadequate to express your felt convictions on the subject ? Do you not feel that the language of *natural religion* is also the truest language of *natural philosophy* ; and that, after contemplating the wonderful works of nature, we speak most truly the convictions of our reasonable minds, when we directly apostrophize the Deity, and say, with the poet divine :—

"*Thou* visited the earth and blessed it ; *Thou* makest it very plenteous ; *Thou* waterest her furrows ; *Thou* sendest rain into the little valleys thereof ; *Thou* makest it soft with the drops of rain, and blessest the increase of it.

*Thou* crownest the year with *Thy* goodness, and *Thy* clouds drop fatness. The day is *Thine*; the night also is *Thine*. *Thou* hast prepared the light and the sun. *Thou* hast set all the borders of the earth; *Thou* hast made summer and winter. O LORD, how manifold are *Thy* works; in wisdom hast *Thou* made them all; the earth is full of *Thy* riches."

[15. A single word more:—The actual existence of moral and physical evil in the world is generally, I do believe, the great stumbling-block in the way of men's receiving the doctrine that all things are the creation and under the immediate superintendence of an Almighty and Intelligent Being. To those who may unfortunately be influenced by such considerations, I would beg leave merely to suggest, without—as that is impossible at this hour—arguing the question, how much all the difficulties arising from the existence of evil are increased by the miserable hypothesis that there is no God, and no life for us beyond the present! Nay, the argument has been well urged by Butler, that, *because* such evils do exist, and *because* there is not always a satisfactory award upon the actions of men in this life, *therefore* we must conclude, even had we no other argument, that "the be-all and end-all" of our existence is not here. Even were we not constrained, by all that is rational within us, to conclude that "the Maker of all things is God;" and that, but for His eternal existence, the universe, instead of a fair creation, full of life and beauty and marvellous operations, would have originally been, and so continued to be, a dark and lifeless *blank*, and at least (whatever we may conceive space filled only with eternal matter to be) a world without conscious beings, and consequently without *ourselves*, as well as without the Deity. Let us only grant, *but as an hypothesis*, the existence of Eternal Intelligence, and at once, the flood of light, which our reasonable souls seem to pant for, is let in upon this utter darkness of nature! Were there no other argument than this, *The Idea of God explains all*,—seeing it accounts for our own subordination, as well as our superiority, in the world of being,—we should, I venture to assert, be compelled, as intelligent beings, to accept it. How much more so, when it is pressed upon us, as supplementary and cumulative proof, in addition to all the convictions we must have of God's existence, if we judge only in this, as we do in respect to the existence of the life and intelligence of each other, and in accordance with our invariable and everyday convictions and experience as to productions of human art and intelligence? And remember one of two things you *must* believe; for the Atheist has his creed as well as the Theist: you must believe in *eternal matter* if not in *eternal mind*. Mind and matter do both

at present exist; and the question is, *Which is the cause and which the effect?*—*which* of the two is eternal? If you say matter—the dead and unintelligent thing,—then you have to account for the *creation* of life and intelligence! But when you say that mind is eternal—Intelligent Being the true *entity*,—you have nothing contrary to your reason or experience to add, to complete your hypothesis of creation. Even *now* you have a striking analogy *before you*—the creation of something sensible, which you now perceive, produced by an invisible power, presided over by intelligence! You ask where? In every *sound* you now listen to—in every *word* I am uttering in your hearing! But where in the whole creation can you point out a single instance of life, intelligence, and will—in short, of spirit—being subordinate to and produced by material things? If matter only be eternal, account for the existence, if you can, of the invisible *life* and *mind* of man!

16. I am aware there are difficulties in Natural Theism, and even in Revealed Religion itself, which of course I could not overtake in this lecture. But these *cannot* overthrow the foundation I have earnestly, and I trust successfully, however inadequately, endeavoured now to lay. And all these difficulties will vanish, I am bold to say, to any one who will give himself further time to study the question; who, having arrived at faith in the—to him—Unknown God, proceeds onward to the study of what has been revealed of Him, and sincerely seeks the “knowledge of the Holy” in the Scriptures of Truth, and from those whose very mission it is to declare God’s will—His mercy and His perfect righteousness—to men.]

The CHAIRMAN.—We are much obliged to Mr. Reddie for supplementing the paper of Dr. M’Cann, and I shall be glad to hear any observations either from members or strangers, upon either or both of the papers that have just been read.

Mr. AUSTIN HOLYOAKE.—As I happen to be a non-member, and, may say, a stranger, I hope the meeting will pardon me for taking this early part in the discussion. I must confess to having been taken a little by surprise since I have been in the room, because, when I came, I thought I should only have to listen to one paper; but we have had two. The gentleman who read the latter appears to me to be somewhat in the character of an animated supplement. The debate to which he alludes, as having taken place in 1852 between Charles Frederick Nicholls and the Rev. Woodville Woodman, I happened to be present at, and fulfilled the functions of chairman. I cannot, at the present moment, call to mind the whole scope of that debate, or say how far Mr. Reddie’s paper would be relevant thereto; of this, however, I am quite sure, that one half of it is not relevant to the subject of

this evening's discussion. Neither do I think that I am called upon, under the circumstances—not having known that Mr. Reddie intended to supplement the lecture, of which I had kindly been favoured with a copy—to follow him in his argument, though a great deal of what he said was a reiteration of what had been advanced by the opener, excepting that he appeared to repudiate, to a certain extent, the design argument; and yet, if his argument had any merit at all, it was in favour of design; or, if not, I fail to see its relevancy. But I am more concerned with the paper of Dr. M'Cann. The Secretary did me the favour of sending me a copy beforehand, and I also followed Dr. M'Cann very attentively as he read his paper, and I noticed that, at the opening, he made a brief apology for want of time in preparing it. I am truly sorry that he had not time to give his best thoughts to a subject of such importance as this. (Hear, hear.) It is a matter upon which no gentleman should come forward to instruct an audience of this description—and especially directed, as I imagine the paper is, to persons in my position,—unfortunate position as some people seem to think,—unless he has well considered and prepared himself; I therefore regret that Dr. M'Cann has not given his best thoughts to it. As he read his paper, I had an impression that it was faulty, and I thought I saw several weak points in it——

Dr. M'CANN.—I simply apologized for the roughness of the form of my essay, and not for the scantiness of my thoughts. I said nothing at all to deprecate criticism. All the thoughts were matured; it was simply the manner in which they were expressed to which I referred.

Mr. HOLYOAKE.—I will accept that explanation. I wish, however, to enter a respectful protest against the wording of the last sentence in Dr. M'Cann's first paragraph, and against an expression which he uses in his conclusion. They are nearly in the same words, and are the same in spirit:—

“If it can be shown that we affirm the existence of Deity for the very same reasons as we affirm the truth of any geometric proposition; if it can be shown that the former is as capable of demonstration as the latter—then it necessarily follows that if we are justified in calling a man a fool who denies the latter, we are also justified in calling him a fool who says there is no God, and in refusing to answer him according to his folly.”

Again:—

“If the mathematician be justified in asserting that the three angles of a triangle are equal to two right angles, the Christian is equally justified in asserting not only that he is compelled to believe in God, but that he *knows* Him; and that he who denies the existence of Deity is as unworthy of serious refutation as he who denies a mathematical demonstration.”

[During the reading of these quotations the Rev. Dr. Thornton was obliged to vacate the chair, and Mr. Reddie presided for the remainder of the evening.]

Now, the spirit of the latter observation is very much in the spirit of a quotation which is often made, I do not care from what authority you take it, and which is equally bad in taste, and false as a matter of fact, viz., “The

fool hath said in his heart there is no God." In the first place I do not know, nor can I imagine, any fool as a likely person to study this question ; the chances are that no fool ever thought the question out. We know there are thousands who believe, but there are few who really study and think out this great question. I think the time has arrived—especially when we know the class of men of high intellect and culture who are arising in this country, and who think differently to most people—when we should say that that phrase, and even the thought which it embodies, is totally inapplicable to them. It is bad in taste, and ought to be laid on one side, because, if you came here to read this paper, and did not intend to reason with those who disbelieve, or could not accept your conclusion, why did you read it at all ? Certainly it could not be to convince those of your own opinion. There are many clever men in this country, quite as clever as the opener, who totally disbelieve in his conclusions. I take a similar position ; but allow me to say that I am an Atheist in this sense—and I do not know any modern thinkers upon this subject who take different ground to what I do—namely, I am an Atheist as to the various representations of the Deity of which I have read and heard ; this is very different from being a denier of a God. No man *knows* any more of the existence of Deity than he knows of the existence of a Devil ; it is a pure matter of imagination, according to a person's intelligence and education.

The CHAIRMAN.—Do you not deny altogether the existence of Deity ?

Mr. HOLYOAKE.—I do not deny the *possible* existence of a God. I do not know any Atheist who does ; we deny the various representations which are made of a Deity. I will give you one or two reasons why I cannot believe some of the representations which have been made to-night. In the third clause of Dr. M'Cann's paper, he says : " By Deity, or God, is meant a conscious person, eternal and unproduced, capable of causing all changes that have happened, knowing all that is knowable, perfect in every attribute of His nature, and voluntarily conditioned by His own act in creating." That is simple anthropomorphism, and nothing more. I would ask, if the alleged Deity be a person, how can he possibly be a Deity ? If a being is a person, how can he be other than persons such as we know ? " Person " implies organization, contrivance, and, if you will, intelligence. A Deity is simply, then, an organized person. Now, persons of whom we have any knowledge, or ever had any knowledge, are persons of finite capacities, limited in their knowledge and powers. We never knew a person apart from organization.

The CHAIRMAN.—I think I may make the acknowledgment that the paper is so far defective that it has not gone sufficiently into that definition ; but still it is obvious that Dr. M'Cann has no idea of a " person " in the sense you apply it.

Mr. HOLYOAKE.—I would rather that you left him to defend his own arguments.

The CHAIRMAN.—It was not with the view of interfering with the discussion that I spoke, but you are reasoning against a position which no one has maintained. I do not, for instance, believe in Deity as being an organ-

ized person, such as you seem to suggest. We have even a definition in the Thirty-nine Articles quite the reverse.

Mr. HOLYOAKE.—Excuse me interrupting, but I have had much experience in presiding at meetings like these, and I have always found it well to allow a speaker to finish in his own way. I was saying that Dr. M'Cann considers this Being, this conscious Person, to be voluntarily conditioned. We will consider that hereafter. In the eleventh clause, he says: "If the inspection of a machine necessitates or renders self-evident the affirmation of a conscious agent, the inspection of nature, for exactly the same reasons, renders the same affirmation necessary in regard to it." I will admit, for argument's sake, that a machine necessarily implies a contriver; but then every machine of which we have any knowledge has been contrived by man, by an organized being, and even the greatest intellects we have known have been persons of limited capacity and liable to err. You ask me, because I admit that a machine implies that it has been made by man, to say that it is logical, and in perfect analogy, to conclude, from other things which I see around me, that a totally distinct Being or Organism exists. Logic fails you there. If it proves anything by this process of analogy, it proves the existence of a Man. The only novelty I have found in the paper is one which may place Dr. M'Cann in a difficulty with his spiritual pastors and superiors, if they take any notice of it; it is certainly heresy. He says, the Deity "could not be the author of His own existence: not the Universal, the First Cause." Mr. Reddie maintained that the Deity was the First Cause of everything. If, according to Dr. M'Cann, this Deity "could not be the author of His own existence, and, consequently, could not be the Universal or First Cause" (paragraph 13), he must be the second or lower cause, and, consequently, by parity of reasoning, He must be the effect of some preceding cause. I believe, myself, there is no Being, in the sense of this paper, that could possibly have been the First Cause, or even a conscious person, omnipresent and unproduced. It is self-evident that the First Cause must be uncaused. If any human being can imagine the first cause of everything, it will be a feat which I know no one able to perform. What do you mean by a First Cause in the sense claimed for the Deity, or for the cause of the universe? It is an unthinkable idea. You cannot imagine something existing before anything existed, or imagine a time when time was not. If this Being was not the first cause, Nature, or something we call Nature, must have been in existence, and this Being, for whom Dr. M'Cann has been contending, must be something within Nature, and therefore not God at all. I say, then, you cannot possibly imagine a Being outside governing all things. You cannot get outside of everywhere; everything within nature is a part of nature, and subject to the laws of nature. If you say that God is not an organized Being, and not a person in the sense that I understand, how do you make out that there can be intelligence without organization? We never knew intelligence without organization, and you have therefore no analogy to go by. That is exactly the position, and always must be the position, in considering final causes. Dr. M'Cann has quoted Mr. Lewes, who says that "the search after first and

final causes must be a profitless pursuit." It must be, because it is impossible for the human mind to imagine a beginning, or to define an unorganized Being. According to your argument, why may I not be justified in saying that Nature is eternal, that we know of nothing excepting Nature, and if Nature existed before the Being, what necessity was there for the Being? If you say that He is eternal and uncreated, why may not Nature be equally so? Your argument would show that it is impossible to imagine the non-existence of a Deity. I say that it is much easier to imagine the non-existence of some strange, extraordinary Being, of whom no one has any knowledge, than to imagine the non-existence of Nature; you cannot imagine the non-existence of everything. All these discussions must end where they begin—in assumption. No one has any knowledge of the subject; it is pure imagination, according to each one's intellect, mode of thought, and training. If you limited yourselves to stating your imaginations as imaginations, I should have no contention with you; but when you come forward to say, We can demonstrate such a Being, He has certain attributes, and He designed us for certain purposes, and we must therefore pursue a certain line of conduct (which you lay down), I must differ from you, for you have no more knowledge than I have, and you have no right to lay down rules for my guidance. I have gone over two or three points, and I trust to pay still more attention to the argument. I intend publishing thoughts upon this subject; they will be more coherent than the imperfect utterances of to-night, and I shall take an early opportunity of laying them before Dr. M'Cann.

The Rev. C. A. Row.—I came here this evening to do what was rather disagreeable,—to severely criticise, with the intention of demolishing, Dr. M'Cann's paper; and it did not require the aid of Mr. Holyoake for that purpose. I candidly confess, however, that I further intended to supplement that paper; but my friend Mr. Reddie has produced something which has rendered that unnecessary. First of all, let me say that Mr. Holyoake has made a slight mistake respecting paragraph 13; he has misunderstood or misapprehended it. I have certainly not read it as intending to assert that there is no such thing as a First Cause. It is a mere inference, following certain principles which the author disclaims. I do not say that the points in the paper have been put as clearly as they might be, and in some places I think there have been misprints. For instance, in page 2 the author says "by demonstration is meant induction;" and I think he means "deduction."

Dr. M'CANN.—Yes.

Mr. Row.—So I thought. I am ready to admit that I do not think it possible to apply demonstration to the proof of a God in the sense in which demonstration is meant in mathematics. In dealing with mathematical subjects, we deal with two conceptions; in geometry with simple extension; and in algebra with simple quantity. Dealing with these conceptions only, we are able to deduce certain conclusions; but I do not apprehend that it is possible to exercise this strict process in any other department of human knowledge. The moment we introduce another factor into our conception, we are incapable of perceiving, for certain, as in mathematics, whether the same

terms are in the final conclusion as in the premises. We cannot, therefore, use the process we call demonstration, as in mathematics. Still I quite understand there are equal certainties, quite as certain as mathematical demonstrations. I will take an example. Suppose I had four pennies, and I threw them up, and when they all fell they showed "heads," I should think that very extraordinary, and if I did that twenty or a hundred times, and with the same result, it would be irresistible to my own mind that some unfair play had been used. That would be self-evident, though I candidly admit that it would not be demonstrative. It is also utterly impossible to give a definition in a mathematical sense of what *ought* is, yet we have as clear an idea of what it is as anything in mathematics. The argument is brought into narrow limits as to the attributes of God. I have engaged considerably in controversial works, and I do not use hard language; the *Westminster Review* has stated that I have abstained from any species of it; still I cannot altogether find fault, as Mr. Holyoake has done. A few weeks ago I went into one of the rooms at the British Museum, and I saw the skeleton of an enormously large serpent. I contemplated it; I looked at the backbone, the wonderful arrangement of sixty or seventy vertebrae, and I could not help feeling that I had before me one of the strongest evidences of design. I saw adaptation, and felt the inevitable result that must follow from such an evidence of adaptation. It never originated of itself; it proved design, it had combination, it showed a scheme, it showed wisdom; it is no use to invoke infinity of time and get rid of the question in that way. I am quite aware of what is common among writers of great name; when they meet with marks of design and skill, they say they were caused by evolution by the aid of infinity of time. That is no answer to what we instinctively perceive as adaptation; and where there is this adaptation, I am entitled to infer a designing mind. By adaptation I mean skill and everything of that kind. Unless we are clear upon these points, we have misunderstandings; and there is some such confusion in using the term "final cause." Some of Mr. Holyoake's remarks arose from an insufficient appreciation of several of Dr. M'Cann's definitions. The want of correct definitions renders us incapable of mutually understanding one another. When I use this word "design," or "adaptation," I include every kind or species of skill, and when I saw and contemplated this serpent, there was an irresistible effect wrought upon my reason, and I believe the text almost consciously passed through my mind, "The fool hath said in his heart there is no God." I am not quite sure that the words did not escape my lips.

The CHAIRMAN.—That passage has been already referred to, and I thought of saying a word about it, but I observed Mr. Holyoake was impatient. In the original, "fool" is not used as an expression of contempt, as in our ordinary usage;—it merely means the unwise.

Dr. M'CANN.—I was going to refer to that.

Mr. Row.—I was aware of that. Well, this serpent showed an immense, a wonderful adaptation of one part to another. I am not going to enter into metaphysics and show what are the laws by which we perceive adaptation, it is a simple fact that mankind perceive it. There is often a great deal of

difficulty imported into this subject by metaphysical analysis. I am prepared to abide by the principles of common sense, and what all people feel must have some reality despite all metaphysical quibbles. Looking upon that skeleton and remembering the vast number of means, that are required as conducive to a common end—it afforded an overwhelming evidence of design and a designer; and that evidence runs through the universe of Almighty God. Mr. Holyoake has said that if we have any idea at all of the personality of that God, it involves anthropomorphism. I wish to know how man can form any idea which is not derived from his own bodily or mental perceptions. We can only conceive of a Deity relatively, even by the highest conceptions which man can possibly entertain. I cannot see the force of Mr. Holyoake's metaphysics as to God having no attributes. I am ready to admit that the human mind has only human ideas, and that it cannot comprehend the infinite. It can infer and grasp the finite in its highest and grandest forms, but there is something beyond which it cannot grasp, which we call the infinite. An argument upon this subject occurred to me last week, and I am going to mention it. I allude to the flint knives of the first stone age. I am not desirous of arguing whether they were the production of man or not, but think it will soon appear, from what I have heard, that they are positively the productions of nature. My argument is, that atheists infer, from the imperfection of the instrument, that these knives were made by men in a very low state of civilization. They certainly prove this if they are real knives. If these knives can be shown to have been in existence a hundred thousand years ago, the argument is irresistible, that savages existed one hundred thousand years ago also. The inferiority of the intellect which made the knives is justly inferred from the inferiority of the instrument. Granting the premises, the reasoning is irresistible. But why am not I entitled to carry the reasoning further, and infer from the superiority of an instrument such as the eye, that it is the production of superior intelligence? If a bad instrument proves low intelligence, a good instrument proves the presence of superior mental power; and a wonderful instrument such as the eye, the presence in previous ages of the highest mental capacity. In the human body we have the utmost complexity of relationship of parts; parts which we may not always comprehend; yet they prove intelligence, and that intelligence we call God. I do not think this argument can be got rid of because there are certain things about us the uses of which we do not happen to know,—as for instance, the uvula is said to have no use.

The CHAIRMAN.—I do not think so.

Mr. Row.—But *there* are parts which are said to be of no use: the uvula is even troublesome sometimes. What I mean is, that because we do not happen to see the uses of a certain part of the human body, the argument that the whole body is made by a superior wisdom is not invalidated. Take the various joints, and we see evidence of the skill of the mechanist, the greatest possible skill; and the manner in which they are made

to suit the various muscles, and adapted to the requirements of the human body, is something marvellous. Yet we may not see the end and purpose of them all. There are said to be typical parts of the human body. I cannot understand such a thing as order as distinct from skill and design. Order must be the result of intelligence; and we are positively incapable of believing that disorder comes of intelligence. If that is so, the existence of useless members does not by any means get rid of the evidence we actually have. That evidence is of immense amount, extending through the whole of animated nature; it shows adaptation, proves the presence of a designing mind, and upon that I rest the argument and the proof of the existence of a God. The moral proofs are even stronger. The idea of *ought* implies responsibility; and those who would deny it would have to reconstruct the entire structure of human language. They are obliged, after all, to use the ordinary language of men; and if you take any man who denies the independent existence of our moral perceptions, and says that morality can be resolved into simple expediency or self-love, the language he uses invariably contradicts his assertions.

The CHAIRMAN.—With reference to the 13th paragraph, Mr. Row did not quite explain Mr. Holyoake's error. I would have checked Mr. Holyoake myself had he not been quite so impatient. He simply left out an "if," and therefore his whole argument goes for nothing. The accusation that he brought against my paper is, that it avoids the question raised in the debate at which Mr. Holyoake presided. I think that is hardly so. It was written upon that very question, and within a month of that discussion. I invited those who were present at that debate to come to a free discussion upon it, and I suppose, as Mr. Holyoake has not said anything to the contrary, he was not present.

Mr. HOLYOAKE.—I did not hear it.

The CHAIRMAN.—My paper will also be printed; and if I had known earlier that Dr. M'Cann's had been so brief, I would have had mine circulated also. But Mr. Holyoake can yet have the opportunity of replying to it.

Dr. M'CANN, in reply.—I cannot accept Mr. Row's assertion that he has demolished me—

Mr. Row.—I said I came with the intention of doing so.

Dr. M'CANN.—But you have spared me. You said you did not believe my argument capable of mathematical demonstration. I affirm that it is, and have given my reasons. I believe the position is axiomatic, and in demonstrating mathematics we string axiom to axiom—

Mr. Row.—I should have contended that your axioms were not axioms.

Dr. M'CANN.—That is what I wished to have discussed. Whether my statements are entitled to the character of axioms or not, the propositions are asserted to be self-evident; and it does not require many words to explain them, and to show they are not only axiomatic but intuitive. If they are truly self-evident it suffices; whether they are intuitive or not, is a different matter. I, however, agree in much that Mr. Row has said, especially about the word "ought"; also that the moral argument is the strongest,

and that many thoughts are quite as certain as a mathematical demonstration can be. I would have, myself, no doubt about the existence of a Deity, although it could not be demonstrated mathematically. I may mention what occurred between Mr. Bradlaugh and myself about the word "ought." I pressed the meaning of that word upon him, and, in reply, he explained it thus:—"I have an understanding of it, as when I place a piece of paper above the flame of a candle to say it 'ought' to burn." Now, I say, no, the paper *must* burn; if the conditions of burning be absent, the paper cannot burn; there is no "ought" in the matter at all. As to my apology at the beginning, it was rather for the language than for the thought; and I certainly did not quote the passage about a fool with the view of using it as a sneer; when I wrote it, I thought of the words in the identical meaning explained by the chairman. A fool neither affirms nor denies the existence of a God; he thinks nothing at all about it; his thoughts are as one who is "unwise." The last paragraph in my paper does not apply to Mr. Holyoake, by his own confession. Mr. Holyoake does not deny the possibility of the existence of a God, though he differs about certain definitions that I have given with regard to Him. One is, that He is a conscious person—a personality. Now what constitutes the personality of man? The *mental* divergence between one human being and another. One man's thoughts, modes of action, motives, and characteristics, differ from those of another man, and in *them* we find that which makes up a human being's personality; the material, or outward form, is not his personality, as such. I use the word far more as regards intelligence in man than of him as a material organization. Mr. Holyoake acknowledges that when he sees a machine he believes in a framer or constructor, because he has seen machines made by human beings, and a machine indicates human intelligence, and that it was made by man. As Mr. Row showed us, all that we can do with regard to things that man cannot make is to intensify, as it were, what we know of our own power, and of our own intelligence. We know our own limits, we know that man can do certain things, and that other things he can not do; yet these other things are done, and we call the power that does them the power of the Infinite—that which produced creation and all the changes of nature that we see around us. Mr. Holyoake says that he intends replying to my address; may I request him to follow my argument as I have stated it, and not to miss certain parts. Only as he does so, will I consider his reply a fair one. In his address he did not touch the propositions that I call axioms. In his written reply, I trust that he will either acknowledge they are true or show that they are not; and, if he can do so, that they are false not merely as axioms but as propositions. As he purposes doing that, I will not notice anything further that he has said this evening, but will wait for his reply. And if Mr. Holyoake consults his brother, he will tell him that I shall not indulge in very objectionable language or harsh terms respecting him. Let me, however, make one remark about an observation which I had almost overlooked in my introductory paragraph. I spoke of those who denied the existence of a Deity altogether. No person is more ready or willing than I am to argue with a mere doubter, though I

am quite ready to admit my own shortcomings ; I do not believe in either the infallibility of the Pope, or of myself. But as to a person who *denies* the existence of a Deity at all, I can have no grounds of argument with him. If he point blank deny the possibility of such a Being, there is an end of the matter ; but if he say, " I do not think there is a Deity," or, " I cannot assent to the existence of a Deity," my reply is " Come and let us reason together." I would argue with a man who withholds his assent.

Mr. Row.—You just now referred to your axioms again. Do you mean to apply that word in your paper in the strictly mathematical sense of propositions ?

Dr. M'CANN.—Yes. But all propositions are not axioms. These are self-evident propositions.

Mr. Row.—And therefore axioms. I differ from you, then.

Dr. M'CANN.—That all these are self-evident propositions ?

The CHAIRMAN.—The difficulty that I, and I imagine others, would have, would be in knowing the exact meaning of them. The paper contains an immense number of these propositions, and sometimes the language you use I should not have understood in the same sense that you appear to do. We should therefore have had a mere verbal discussion without getting at the essence of the thing. That was one great difficulty which I have felt.

Dr. M'CANN.—Thinking of the Society before whom I was to appear, I supposed that all these preliminary definitions would be understood, and arranged my argument in a definite form to provoke discussion on the axiomatic character of my propositions. That was the point that I wished debated, but time is passing away without this being done. Mr. Holyoake has told us what is his belief, and what are his views ; but I do not think he has attempted to reply to my paper. As to the accusation of heresy, my language might be heretical, but the word " if " saves me from my spiritual pastors and masters. I can see how Mr. Holyoake fell into the mistake, for the " if " is in the previous sentence.

The CHAIRMAN.—I do not agree with Dr. M'Cann in his difficulty about replying to an out-and-out atheist, who plainly denies the being of a God. I myself would rather prefer that my opponent should put his views distinctly in the form of a proposition denying that God can exist, so that I might as distinctly meet him.

Mr. Row.—I wish to express my concurrence in that view.

The meeting was then adjourned.