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JOURNAL OF
THE TRANSACTIONS
OF
The Victoria Institute,
OR,
Philosophical Society of Great Britain.

EDITED BY THE HONORARY SECRETARY,
CAPTAIN F. W. H. PETRIE, F.G.S., &c.

VOL. XXIX.



LONDON:

(Published by the Institute, 8, Adelphi Terrace, Charing Cross, W.C.)

INDIA: W. THACKER & Co. UNITED STATES: G. T. PUTNAM'S SONS, N.Y.

AUSTRALIA AND NEW ZEALAND: G. ROBERTSON & Co., LIM.

CANADA: DAWSON BROS., *Montreal*.

S. AFRICA: JUTA & Co., *Cape Town*.

PARIS: GALIGNANI.

1897.

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ORDINARY MEETING.*

SIR G. G. STOKES, BART., IN THE CHAIR.

The following paper was read by the Author :—

MIRACLES, SCIENCE, AND PRAYER. By the Rev. J. J. LIAS, M.A., Chancellor of Llandaff Cathedral, Rector of East Bergholt, Colchester.

I REJOICE to find myself once more addressing the Institute, after an interval of some years. If I have chosen an altogether different subject to those which I have treated on former occasions, I may at least claim that it has received from me some attention. I published a small volume on the subject of miracles in 1883. I fear I can at present add but little to what I have there said, but if I should seem to repeat myself on this occasion, I can at least claim that when I then wrote, I was working on new lines. At that time the question of miracles had hardly, so far as I knew, been approached from a scientific standpoint, yet the scientific was the side from which the most formidable objections proceeded. The discoveries of the last two hundred years in the department of physical science had largely extended the domain of law in relation to phenomena. Therefore the conception of miracle as a violation or suspension of the laws of nature had become discredited. It had become necessary to restate the argument for miracles in a form not incompatible with the progress of science. It should

* The preliminaries of the meeting have been published, but the final arrangement of the paper and discussion has only now (1897) been possible.—ED.

be observed, however, that the modification of the argument for Christianity, which has been found so absolutely necessary of late in various departments of theological thought, does not necessarily involve, as some have hoped and others have feared, a surrender of any part of the Christian position. Thus in the case of miracles, if it could be proved beyond a doubt that they were not, and could not be, violations or suspensions of the laws of nature, not one single presumption would be thus raised against the fact of their occurrence. The confutation would apply simply to the customary definitions of them. In days when scientific principles were unknown, it was by no means surprising that unscientific explanations should be given of observed facts. If, in days of scientific knowledge, those explanations have to be abandoned, it would not only be illogical, but highly absurd to contend that the alleged facts themselves were thereby disproved. An unscientific explanation of miracles when discovered no more compels us to abandon our belief that they occurred than the utterly mistaken conceptions in relation to physical science before the days of Bacon and Newton involves, when discarded, an abandonment of our belief in the reality of phenomena. Thus the question of the credibility of miracles remains exactly where it was, and it must be discussed now, as ever, on historical grounds. The modern apologist for miracles has only to modify his argument so far as to meet the *à priori* assumptions of the impossibility of their occurrence, and to explain their nature on sound scientific principles.

Accordingly, in the volume to which I have referred, I endeavoured first of all to frame a theory of miracles which was not incompatible with the principles of science. It is obvious that if such a theory can be found, the whole attack from the scientific side is repulsed, and the argument resumes its original form—that of an examination of the credibility of testimony. I therefore abandoned the language of earlier apologists, which described a miracle as a “violation or suspension of the laws of nature,” because we have no evidence before us that it is anything of the kind. I defined a miracle as “an exception to the observed order of nature, brought about by God in order to reveal His will or purpose.” *How* brought about I did not presume to say, because nobody can possibly know how it was done, and if we did know how it was done it would cease to be a miracle. I then proceeded to discuss the scientific objections to the miraculous. These

are based upon the supposed uniformity of natural forces. But it is by no means difficult to show that however uniform natural *forces* may be, the *results* of such forces are not only not uniform, but infinitely various: and that it is to the interaction of forces themselves invariable in their mode of operation that the infinite complexity which we observe in natural phenomena is to be ascribed.

This assertion will hardly be disputed. The motions of the heavenly bodies are regulated in the simplest possible manner. The interaction of two forces only directs those motions—the so-called “law” or observed characteristic of nature which impels every body to move straight on in the same direction in which it is moving at any given moment, and the force of gravitation, which varies directly as the mass, and inversely as the square of the distance, of the bodies which exert it. Yet how infinite are the results of the combination of these two opposing forces! It has been observed that, regular as is the revolution of the moon round the earth, it never returns a second time to the precise place in the heavens it occupied on previous occasions. But this is not all. The place of the moon in the heavens, as viewed from the earth, is merely relative. But astronomers now tell us that the whole solar system is in motion round some unknown centre of force. Therefore it is certain that the moon not only never returns to the place she occupied before, but is each month, at the end of her revolution round the earth, at a distance at present immeasurable from her position at the end of the previous one. Add to this the fact that all the countless orbs we see in the skies are continually modifying each other's motion in an infinity of ways, and we find that the mutual action of two simple laws in the universe is capable of producing variations infinite in number. If we turn to the more complex forces at work upon the earth—those that influence the weather, for instance, we shall find the same infinite variety in a far less extended sphere. One reason is, that new forces are here brought into play. Not only are the two laws of force of which we have spoken in action here also, but other forces beside, such as heat, light, electricity, chemical affinity, and the like. So that although the course of the seasons is uniform, and their general character well ascertained, there is, nevertheless, room for endless variety of detail. No one season is exactly like another. Heat and cold vary year by year in intensity and duration. It is impossible to predict accurately beforehand the rainfall or amount.

of drought likely to occur in any given year. Cyclones, typhoons, tornadoes, and other violent phenomena, defy calculation, while earthquakes and volcanic eruptions add an additional element of uncertainty to the problem.

In fact, the further we examine into natural phenomena, the more we see that however invariable forces may be in their action, in their results they vary even to infinity. Therefore all arguments drawn from the invariability of the natural order must be abandoned. Invariable laws of force produce any amount of variation in their results. And if it be possible for other laws of force to be brought to bear upon natural phenomena beside those whose action has been observed, and whose laws have been ascertained, so that additional variations are thus introduced, this can take place, as will hereafter be shown, without the collapse or overthrow, or even serious derangement, of the order of nature.

The next step was to inquire into the nature of force. It was shown that here science must confess that it has no answer whatever to give. The effects of *some* forces at least are evident, and can be computed with mathematical accuracy. But the *modus operandi* of force utterly transcends our powers, and one of our most distinguished men of science feels that he can give no other account of it than as "the effect of consciousness or will."*

For who can tell us what force is, how it is generated, and how it acts? Take the force of gravitation, for example. What do we know of its *modus operandi*? We understand the "law" of its action, we say. But the word "law" is itself ambiguous. As the Duke of Argyll has said in his *Reign of Law*,† the word is used in many senses. It means, he says, (1) an observed order of facts; (2) such observed order in relation to force; (3) the observed order of action of any particular force; (4) combinations of force with reference to fulfilment of purpose or discharge of function; (5) it is used of abstract conceptions of the mind, necessary to our comprehension of phenomena. These distinctions are not clear. But at least the Duke says enough to shew that care must be taken to understand what we mean by the word. In its ordinary acceptation it means none of these things. In popular language, and even in some departments of exact thought, it means a rule imposed on us from without, which we are under the necessity of obeying. Thus the

* Sir John Herschel, *Astronomy*, Sec. 440.

† Pp. 64, 35.

term law of force itself in the ordinary use of language, involves a possible misconception.

What is usually called the "law" of the force no doubt represents the results which necessarily follow from the employment of the force. But it in no way explains those results, or indicates the reason of that necessity. It simply indicates the fact that a certain class of results invariably follows when it is put in operation. We have, however, by no means explained all about the force of gravitation, when we have proved that the attractive force a body exerts through its operation always varies inversely as the square of the distance of the bodies attracted by it. This fact leaves us in as much ignorance as before in regard to the way in which the force is exercised. If I take a piece of string and cause a body to revolve round my hand by attaching it to the string, the motion of the body is explained by the cohesion of the particles of the string, and their consequent influence on the body attached to it. So, if I attach a body to an iron bar, the cohesion of the particles of that iron bar will determine the motions of the body. But the force of gravitation must act through the particles of what was once called the "luminiferous ether." And those particles are not only of infinite tenuity, but are infinitely more easily disturbed, offer infinitely less resistance to the passage of solid bodies than the atmosphere of the earth. How is the immense force of gravitation exerted by the sun over the planets transmitted through this medium? If I forced a body to revolve round my hand *without* the intervention of a string or iron bar, I should be regarded as working a miracle, because I should be exerting powers above or beyond the natural order. Does not the action of the force of gravitation introduce us into a region equally above and beyond the sphere of the known? Has any satisfactory explanation ever been given to it than that it is the result of a Mighty Will existing somewhere outside the natural order of things? We get so much accustomed to secondary causes, to noting and experimenting on their effects, that we forget to ask ourselves the very natural and simple question, How are these causes themselves to be explained? Nothing is easier than to attribute the motions of the heavenly bodies to the action of the force of gravitation. Nothing is harder than to account for the existence and *modus operandi* of that force.

But if will be the origin of force, then we are next com-

pelled to ask, *whose* will, and how governed and directed? And this leads us to the idea of a reason or mind, the ultimate cause of all that is, of the existence of which even the course of physical nature affords no slight presumption. Thence we rise to the conception of a higher order than the physical, an order which the whole course of the visible universe is intended to subserve. This order is the moral order, an order which can only have reference to intelligent and thinking beings such as man. But this order has reference almost entirely to conduct, and must be administered under the influence of *purpose*, that purpose being presumably the ultimate perfection and happiness of the rational beings who live under the dominion of moral law. Moreover, on scientific principles alone we are entitled to claim that the existence of forces outside the visible order has been actually demonstrated. The human will is a force of this kind. It most demonstrably exercises power over nature,* and it is an intrusion into the realm of nature of a force which, if not *supernatural*, is certainly *extranatural*, the law or laws of which no scientific observer has been able to discover. Life is another such force, the source of which is utterly unknown, and the laws of its action only very partially discovered. That will is a force not natural simply, but largely moral, *i.e.*, that it has to do with questions of right and wrong, is a scientific fact which cannot be disputed. That life is largely influenced by conduct, and is therefore a force belonging at least to some extent to the moral order, is another undeniable fact. Thus the intrusion of extranatural forces into the realm of nature is no mere hypothesis. It is simple, demonstrable fact, and fact, moreover, of every-day experience. There is therefore the strongest probability, amounting to practical certainty, that if there *be* an ultimate cause of all that is, and if He *have* subordinated physical laws to moral principles, there will be, whenever His purposes may seem to need it, modifications of the ordinary results of physical forces, brought about in precisely the same way as man's will brings about such modifications.

* Since writing my paper, I have read our President's Gifford Lectures on Natural Theology. I select from them some most valuable confirmations of my argument. "I feel I have the option of moving my hand to the right or to the left. . . . of course I may wish to do a thing which I have not the power to do, but that is a different matter altogether. . . . Such an inability does not in the least militate against our consciousness of free will. We cannot deny to man's Maker this power which man himself possesses" (p. 23).

Thus what has been referred to (p. 266 of paper) as a possibility, comes before us now as a demonstrated scientific fact. Forces, the laws of which science is unable to ascertain, are intruded into the realm of nature from outside, and exercise a marked and appreciable influence upon the natural order. They distinctly and largely modify it, and yet they do not in the least destroy it. On the contrary, they in many ways give new freshness, variety, interest, value, to the order of nature. One of these forces, life, physicists may claim to have reduced to a certain extent to law. But they must admit that it is a force of a different kind, and far more complex in its action than any of the ordinary forces with which they have to deal. The other force, will, defies their investigations. It belongs to another branch of science, metaphysics, which, as the term itself implies, is outside the range of physical science. There is but one objection to this line of argument. The materialist, of course, claims that thought and will are but the function of brain. But materialism is an hypothesis, a creed, not a principle scientifically established. And it has difficulties to face which it has never yet settled to the satisfaction of mankind. Most men who are not materialists are ready now to admit, (1) that the order of nature is not invariable, (2) that it is not unaffected by influences of an order outside or above it.

I say most men are ready to admit this. For the force of these arguments has been admitted by the highest and most respected authority. Professor Huxley, one of the most trenchant antagonists of the miraculous, admits in his essay on Hume that Hume's well-known argument against the possibility of miracles cannot be sustained. He speaks of its "naked absurdity." So completely has he abandoned the old scientific position, that he, on a recent occasion, attacked the Duke of Argyll and the late Canon Liddon with much vivacity for continuing to demonstrate the unsoundness of the theory which he had given up. But Professor Huxley is not the only scientific opponent of revealed religion. Exploded scientific objections to Christianity are apt, unfortunately, still to make their influence felt, not only among the half-educated, but among that large class of persons who seem to feel that any argument is fair so long as it may be used against Christianity. Therefore we are driven to something like wearisome iteration in our assertion of the fact that science has nothing whatever to say for or against miracles.

The question, as Professor Huxley sees, is one of evidence

alone. And in this he is but a follower of one more celebrated than himself. Kant has also seen that no such assumption as that of the impossibility of miracles can reasonably be made. Into the evidence I do not propose, on the present occasion, to enter. The question of evidence, however, is not outside the province of the Institute. It falls within the domain of historical science, and the historical evidence for the miraculous is a question of the most interesting character, which I trust may one day be discussed here.*

What I desire to do this evening, is to give a short sketch of the argument for the existence of what is called the supernatural, but which might with greater propriety be called the spiritual. Some years ago a treatise appeared which attracted much attention, called "Natural Law in the Spiritual World." It has always seemed to me that the principle thus enunciated should have been reversed. The philosophic inquirer might with advantage devote himself to the evidence for the working of spiritual law in the natural world. That there are such spiritual forces at work, Mr. Myers† claims to have demonstrated as a result of psychical research. Such a statement as his, coming as it does from one who is not a professed believer in Christianity, is worthy of the utmost attention. But we need not wander in the dubious paths of telepathy in order to demonstrate the existence of supernatural or spiritual forces. They meet us at every step. First of all we are everywhere confronted with two incontestable and yet most mysterious facts, closely related to one another, yet standing apart from all properly natural phenomena, the existence of *will*, and the existence of *evil*. These are facts, not of the natural, but of the supernatural or spiritual order. Yet their effects are most widely traceable on the physical world. Take the first, leaving out of consideration for the present the will of every being higher than man. Will is clearly an extra-natural force. That is to say, it belongs to an order the laws of which cannot be exactly ascertained, and its exercise is conditional on a faculty which is incontrovertibly extra-natural, except on materialistic principles, namely, the exercise of the reason. For that a species of reason conditions the action even of the brute creation can hardly be denied, though in their case it is of course of a very rudimentary kind. But no one would deny that the lower animals possess the power

* See Vol. xxvii., p. 267. † *Nineteenth Century* for April, 1891.

of choice, and if they possess that power, it must be exercised under the influence of a reasoning faculty, though doubtless of a low type. And that the course of the world may be largely affected even by this power of choice is an undeniable fact. A mad dog, to take the exercise of reason in the lowest possible form, may choose to bite one man rather than another, or may communicate the virus of hydrophobia to one or to twenty animals of his own species, and thus diffuse it more or less widely abroad, to the great danger and misery of mankind. An infuriated elephant or tiger may choose to attack a person of low degree, or the heir apparent to the throne, and the most important consequences may result to thousands of people from this act of choice. Yet can it be said to be the result of a simply natural law? If so, can science formulate that law? Has it given us any reason to believe that it ever will be able to do so? Are we not, even in the case of volition in the lower animals, face to face with the action of a power we cannot define or measure, and are we not thereby brought into contact with realms which are beyond the power of man's intellect to penetrate?

But if we find that even in the case of the lower animals a force of a nature not purely physical is able to intrude into the physical order, and to produce their effects incalculably great, how much more is this true of the will of man. What extraordinary physical and climatic changes have been wrought on the earth by cultivation alone! The clearing of forests has, it is now well known, an immense effect upon the amount of rainfall. We are told that it is to the recklessness of man alone, in destroying the forests by fire, that the conversion of a large part of Australia into a sandy and uninhabitable desert is attributable. The notorious unhealthiness of some parts of Italy is similarly attributed to the desolating wars which have robbed the plains of that country of their inhabitants, and have for centuries rendered cultivation a hazardous and unprofitable occupation. Who can trace what the results of the extirpation of one species, or the introduction of another—witness the recent introduction of the rabbit into Australia or the sparrow into America—may produce upon a country? The chance act of a botanist in casting a few sprigs of an aquatic plant into an English river bade fair, it was said, to choke up all the rivers in England, and we were further told that we only escaped that calamity by the fact that the plant in question was not monogamous. And Professor Sedgwick was wont in

addressing his class to dilate on the tremendous consequences which would ensue to the inhabitants of this planet if the isthmus of Panama were to be cut through, the Gulf Stream diverted, and the climate of this country thereby assimilated to that of Labrador.

Again, take the existence of evil. Evil is the result of the misuse of will. It is the necessary consequence of the power of choice vouchsafed to man. But the conditions of the exercise of that power belong to the spiritual order. No one knows what they are. Even the man himself cannot explain why, on a given occasion, he preferred evil to good. Some, no doubt, would lay down a theory of necessitarianism, or determinism, as it has become the fashion to call it. But determinism cannot claim to be more than an hypothesis, and an hypothesis which is beset by many and serious difficulties of its own. If evil is decreed, we must proceed to ask why it is decreed, a question which has never received a satisfactory answer. As Bishop Butler has shown, the moment we attempt to deal with practical questions on this theory we are forced to act as though it were false. On the basis of determinism, human society becomes an impossibility. So we return to our assertion that the laws of human action are unexplained and unexplainable; that they are facts of a mysterious and supernatural order; that they are altogether outside the region of physical science. And yet what amazing results they have produced on the visible world! From the determination to do evil, to misuse the mighty force of will, comes war and famine, and pestilence: the desolation of once fertile tracts of land, cruelty, oppression, violence, crime, with their fearful consequences, the baneful results of ignorance and poverty, the overcrowding of great cities, the struggles between labour and capital, the various and accumulated miseries of civilised and uncivilised life. These effects are capable of being measured by a physical standard, but they are not due to physical causes. Still less are the effects of the conflict with evil due to physical causes—the noble efforts made to grapple with and to destroy all that is prejudicial to the welfare of mankind, the resistance to moral wrong, whether in ourselves or others, the struggle to promote all that may elevate the character and ameliorate the condition of man. To what natural causes are these facts owing? The inquiry is a purely scientific one. The facts are undisputed and indisputable. It is the province of science to note them, group

them, and assign to them their origin. Let science do so. If it can be proved that they are reducible to purely physical laws, by all means let us know what those laws are. Let us begin, as with other physical laws, to assume their truth, and to calculate results from them as we do in the case of the heavenly bodies. Has this been done? Can it be done? The answer is, Certainly not. Therefore we are not only unable to disprove the existence of supernatural forces intruding into the natural world, and profoundly modifying, without in the least destroying, the natural order, but we find, so far as our present knowledge goes, that such forces are actually at work among us. The utmost the opponents of miracles can say is that when science has sufficiently advanced, these facts, which at present defy analysis and classification, will be ultimately found to be of the same character as the rest. Until this is done, however, the presumption lies the other way.

From this point of view it appears that the miraculous, regarded as the interference of supernatural* with natural forces is not only not a deviation from the ordinary course of things, but in truth, so far as our present knowledge can guide us, forms part of it. This argument may be further extended by a reference to the course of nature itself. As Bishop Butler has said,† there was no course of nature at the beginning of the world. Consequently, even if we admit the eternity of matter, we shall still be forced to confess that the first introduction of organic life into the world was an interposition from without, or in other words was the result of the action of other than natural forces. The same may be said of the origin of species. In the last paper read before this Institute, it was shown that the theory of natural selection, the struggle for existence, and the survival of the fittest, does not satisfactorily account for the evolution of vegetable and animal life. Moreover, it has been frequently observed that no evidence has as yet been dis-

* If the expression "supernatural force" be thought to involve too large an assumption, it should be borne in mind that no more is meant than this—a force outside the natural order, yet exerting power over it. The word natural in the present paper is regarded as referring to inorganic matter—as including all visible phenomena whose laws are capable of being ascertained. Without definitions argument is interminable. Spinoza, for instance, defines the natural order as relating, not only to the visible universe, but to an infinity of things beyond. It is obvious that on such a ground miracle would simply be a part of the course of nature.

† *Analogy*, Part II, chap. ii.

covered which shows one species in the act of passing into another. On the contrary we see that peculiarities introduced into species by the will of man begin to die out as soon as the external influence is removed, and that the tendency under those circumstances is not towards the formation of new species, but towards reversion to type. We see, too, that any attempt to form new species by coupling together individuals of existing species, how near soever to one another, is invariably defeated by the sterility of the offspring. It appears, therefore, still scientifically probable that the production of new species is due to the action of a supernatural force, in other words, of the will of a supernatural being, and that it is therefore a fact of the same supernatural order as the first appearance of life upon earth. This supernatural order has no doubt its laws. The Creator seems, if we may say so with reverence on the strength of patent facts, to be incapable of using action which can be described as purely arbitrary. The whole history of animal life proves this. Each creation of species seems to have proceeded on a plan—to have been superinduced on former acts of creation—to have been a kind of grafting of new forms upon an old stock. But the scientific evidence points, it may be fairly contended, not in the direction of *chance*, but of the deliberate exercise of *Will*. This exercise of Will—and not of Will pure and simple, but of Will under the guidance of Reason and Purpose—is marked yet more clearly by the adherence to type, which we have just observed. The same truth applies with even yet more force to the introduction of man upon the earth, since in his case the rational intelligence seems to be different not merely in degree, but in kind, from the intelligence of all beings previously existing. Moreover, in man we are brought into contact with a fact of an altogether new order.* The existence in him for the first time of spiritual organs brings the visible universe into touch with the spiritual world beyond. Nor is this all. Even in the ordinary phenomena of life it is reasonable to believe that supernatural forces are at work not occasionally, but continuously. Take the case of the entrance into the world of each individual of whatever species. Can it be said that this depends to any appreciable extent

* “The evidence appears to be utterly insufficient to establish, on scientific grounds, the derivation of man by continuous natural transmutation from some different form of living thing.” Sir G. Stokes, *Natural Theology*, p 73.

on the will of their progenitors? The fertilisation of the *ovum*, the sex of the offspring, depend upon causes which are entirely beyond the parent's control. And even the conversion of food into living tissue follows the same miraculous law. No one can tell by what process it is that, within the living organism, dead food is converted into living matter. He may point out the moment at which this inscrutable change takes place. But the forces which effect it are altogether beyond his ken.

We have so far argued that the physical world is very largely under the dominion of forces which are of a supernatural or at least extra-physical nature, and that there is evidence for the fact that a Divine Mind and Will is incessantly at work, guiding and developing and modifying the physical order, and never leaving it to itself. We come next to ask to what order these truths belong. We reply, to an order of which the visible or physical in every shape is subordinate—the moral order. And if we are asked the meaning of that word, we must explain it as an order which concerns itself with the happiness and perfection of rational beings. In such an order, as we have seen, Purpose and Will have a very definite place. To the materialist all is pure, unintelligent, invariable sequence. But the universe is thus reduced to a mere machine, and life, under such dull mechanical conditions, were not worth living. It is the play of Purpose and Will, the hope of progress, the struggle towards perfection, that are as the mighty suns which irradiate the universe of mind. As Newton has said, “the first cause is certainly not mechanical.” And it is equally certain that in an universe called into being at the fiat of God, what is mechanical cannot possibly be the highest part. The physical, the natural, the mechanical, call it by which name you will, is but the handmaid to that higher order where reason, and thought, and conscience come into play. Man himself is a standing demonstration of the truth of this principle. He has unquestionably, as we have seen, power over nature. And though this power is confined within narrow limits, yet it stamps him as belonging to a higher order than nature itself. If his power is limited, it is limited so far as he himself is a part of the order of nature. So far as he rules nature, he derives his power from some source above and beyond nature. Again, the moral order to which he unquestionably belongs, displays

* *Optics*, p. 384.

its superiority to the physical by another fact. We may and do conceive of the possibility of the destruction of the natural order, but we feel that the destruction of the moral order is an absolute impossibility. The order of nature, it is conceivable, might be swept away, and its place supplied by a new order, with new laws of force, new arrangements of material phenomena, new groupings and modes of grouping of material particles. But we cannot imagine an order for sentient beings where duty, justice, righteousness, mercy, truth, love, shall be replaced by other principles calculated to produce a moral order as good as or better than the present. Moreover, the idea of the supremacy of the moral to the material is inseparable from all rational thought. He would indeed be a lover of paradox who would contend that the laws of attraction and repulsion, of gravitation, heat, light, conservation of energy and the like, were of more importance to the world than the moral conceptions just referred to, not to speak of those still higher ones which flow from the relations of the human spirit to God. On the materialistic theory we feel, as regards man, that "dragons of the prime that tear each other in their slime, were mellow music matched with him." From the moral and spiritual stand-point alone do we obtain any conception of man which can be regarded as adequate. It is from that point of view alone that we come to regard the world around us as a vast training school where man is being educated for his true place in an universe which will for ever be the organ of Eternal Love.

I might also draw an argument from the last paper I read before the Institute, in corroboration of the view for which I have been contending. Mr. Herbert Spencer has shown that all the facts with which we have to deal in physical science, matter, motion, force, space, time, individual existence, are ultimately unthinkable. What is this but to say that all forms of existence whatever in this physical world have their roots in an order above and beyond it—that the idea of existence cannot be expressed in terms of the visible order, but must be referred to that mysterious spirit-land which encompasses us, and to which all forces at work here around us may not improbably be found ultimately to belong? Thus so far from supernatural and spiritual forces being an intrusion into the natural order, and calculated to disturb its exquisitely poised equilibrium, the natural order presents itself to the mind simply as the lowest and most mechanical portion of that larger Divine order of which we human beings are permitted

only to see the fringe. And thus the mind ascends in imagination from the facts ascertained by the senses and the reason, to a grand conception of an universal cosmos, as far transcending the visible order of things as the distance of the furthest fixed star exceeds the diameter of the earth on which we live.

Thus, then, we are encompassed on all sides by forces which do not belong, strictly speaking, to the natural order, and yet which are constantly profoundly modifying that order. These forces, unlike forces simply physical, are not invariable in their action, and their laws therefore cannot be ascertained. Moreover, these forces are demonstrably part of an order which transcends in importance the physical order which has been subjected to their influence. What reason can be given, then, against the possibility of an occasional introduction into the visible universe of yet higher laws, designed to subserve a yet more important purpose? That there is sufficient reason to account for such interpositions can hardly be denied. The fact of the Fall, and of human depravity and human misery in consequence of it, is a cause quite adequate to explain them. The remedial agency, as described in the Christian creeds, is in complete accordance with the course of development up to the time of Christ's coming. A second Adam appears in order to regenerate the children of the first. Like all other beings since life was first introduced upon the earth, He is grafted upon the former creation. Then, by a spiritual process, not essentially different to or even more miraculous than those of generation and nutrition to which we have just referred, His life is mysteriously transmitted to those who will accept it. But if, as the Christian scheme presupposes, the humanity of the second Adam is consecrated by personal union with the Divinity, it is impossible that the Divine power residing in this new and Divine Man should not have evidenced its presence by control over the powers of nature admittedly subject to its sway. Hence the miracles recorded in the New Testament. Granted that spiritual forces overflow into the natural world, and it at once becomes eminently reasonable that the history of Jesus Christ, if He were what He claimed to be, should be occasion for an unusual display of their activity. And the fact of the Resurrection, which is not and cannot be disproved, is a sufficient historical warrant for the narratives of the Gospels. With the spiritual importance of that fact we are not now concerned. But its occurrence is supported by a chain of other facts of immense, of overwhelming importance. It cannot be denied that it was the starting

point of a new development of humanity. From the time of the appearance of Jesus Christ in human flesh a regenerating power has been at work in the world altogether out of proportion to any other that has ever influenced mankind. It is therefore eminently reasonable, eminently scientific even to contend that the supernatural forces demonstrably overruling the forces of the natural world received their highest embodiment in the supernatural life and work of Jesus Christ.

Nor is this all. Not only is the miracle of the Incarnation of Jesus Christ a fact in full harmony with the evolution of living beings up to the moment of His appearance on the earth, but there was also a moral and spiritual necessity for such an Incarnation. The fall of man, if it is to be reconciled with the justice and beneficence of God, presupposes his restoration. Yet such restoration is not conceivable, except through the regeneration of his nature, and the bringing him triumphant out of the conflict with the evil influences that environ and even permeate him. What method more natural than the Incarnation of the Son of God, His conflict with and victory over all the malign powers which encompass and enthral mankind, and His infusion of His own Divine Spirit and character into each individual of the race? And this regenerating principle follows the laws of all Divine action. It is progressive, and it is elevating. It does not lay hold first of the spirit of man, the most utterly lost and degraded of the elements of his nature, and thereby gradually impart new energy to the rest. It ascends, according to the universal character of the Divine plan, from the lower to the higher. It appeals, in the first instance, to man's senses and his intellect. The Divine life principle which is to save him appears in human shape in the Man Christ Jesus. The Divine power inhabiting Him cannot be hid, but breaks through the veil of His humanity, and thus attracts the attention of men. That attention is enhanced by the beauty of His moral teaching. Last of all, "In the Spirit He speaketh mysteries," He tells of the marvels of regeneration, of redemption, of life in Him. Then the spirit of man comes into contact with the Spirit of God, the rudiments of the higher life are communicated, and man passes from the psychical* to the spiritual state, enters into that new life which ends in his complete transfiguration into the Image of Christ. From this point of view miracles are

* Our language has no word but this to express St. Paul's ψυχικός, which is sometimes translated "natural" sometimes "sensual" in A. and R.V. Each translation is quite inadequate.

not merely in harmony with the higher laws we find at work, modifying the order of nature, but were necessary steps in the moral and spiritual evolution of man. With a spirit reduced to the condition of a rudimentary organ which had almost ceased to perform its original function, with a soul degraded and enslaved to the body, it was needful that the senses themselves should be first appealed to, in order to waken the higher elements of his being into life. Thus by a gradual chain of demonstration we proceed from the possibility of miracles to their harmony with the forces at work in nature, and from that harmony to the conception of their moral necessity in the work of the salvation of man.

Our demonstration, it will be seen, confines itself to the Gospel miracles alone. Even if the progress of scientific and Biblical criticism should tend to diminish the evidence for some other miracles which our forefathers devoutly believed, we need not concern ourselves very seriously about it. We may believe that Moses and Elijah, as well as Jesus Christ, needed the support of miracles on behalf of their Divine Mission. But their work and His differed widely, both in its object and in its results. We cannot therefore predicate miracles of them, in the same way that we can of the Incarnate God, the Saviour of mankind. We can but contend that in their case the possession of miraculous power was not unreasonable. If the story of the Exodus, of the passage of the Jordan, of the falling of the walls of Jericho, of the swallowing up of Korah and his company, be accounted for by natural causes—that is to say, be removed into the category of special providences from that of miracles—even if this view be accepted, our faith in the overruling providence of God need suffer no diminution. I have always felt that the history of the siege of Leyden is as miraculous in one sense, that is to say, it affords as distinct an evidence of a superintending Providence overruling the ways of man, as anything in the history of the Jews. The mighty strong west wind which brought the relieving fleet to the walls of the beleagured city just at the last moment when help was possible, the fall of the city wall, leaving the whole city at the mercy of the Spaniards, the unaccountable panic which seized those hardy soldiers at the very occurrence which had placed victory within their grasp, and the fact that these marvellous events formed the crisis of the conflict between religious liberty and ecclesiastical terrorism, are as indubitable proofs as any in Holy Writ, that God “ordereth

all things according to the counsel of His Will," are demonstrable evidences that we are surrounded on all sides by supernatural forces, which are working every moment "for us men and for our salvation," and to which the operation of natural laws is invariably and inevitably subject.

It is here that prayer finds its legitimate sphere. We are not in the midst of an universe where everything proceeds in an invariable sequence. We are in an universe ruled according to the most generous and elastic principles consistent with justice and right. The Great Moral Governor is not a despot, governing us by the iron rule of the "Medes and Persians which altereth not"; He is a Father Who listens to the lightest cry of a creature's anguish, and hastens to relieve it, or give him strength to bear it. Forces, with their invariable laws of action, are the most plastic of instruments in the Hand of the Framer of the Universe. We may liken the Lord of heaven and earth to an operator placed at the point of convergence of innumerable telegraph wires, in which precisely the same force, electricity, acting by invariable laws, is yet the obedient vassal of will, and can produce the most wide-spread and the most contrariant results on the same mechanical principles. The illustration of course falls infinitely short of the reality, but so do all our conceptions of God. Yet they are nevertheless extremely useful to us, if they tend in the right direction. The miraculous, on this view, is but a further development of a principle continually in action—the power of God over Nature, exerted for the welfare of the beings He has created. Therefore we need not fear to lift our petitions to the Giver of all good for anything of which we may suppose ourselves to stand in need. If it be good for us, it will be vouchsafed in answer to our requests. If it be not good for us—so we may argue from the analogy of good earthly parents—it will be withheld, and something better will be given us instead.* We need not fear to ask even for fair weather or for rain, as though we were doing something illogical or absurd. The forces of nature, we may well believe, are under the absolute control of Him Who called them into being. If He thought fit, He could cause it to rain on half a field, and leave the rest of the country dry. That He is not likely to

* "He may ask to have them granted . . . but it does not follow that they will be. There may be reasons why the granting of what seemed to him to be advisable may be the very reverse. Hence his request is to be subject to the condition, expressed or understood, that the granting of it is in accordance with God's will." *Gifford Lectures*, p. 60.

see fit to do so does not interfere one whit with the principle of prayer. "In *everything*, by prayer and supplication, with thanksgiving, let your requests be made known unto God." The question of giving or withholding rests entirely with Him. But even prayers which are selfish or foolish are better than forgetfulness of God. We may learn wisdom in our prayers by experience. But if it be folly to pray unwisely, it is far greater folly not to pray at all—far greater folly to assign limits to God's power other than His Wisdom and His Love. Even hair-breadth escapes from death are due not to chance, but to His control over the countless forces of nature. If you are saved by one inch from deadly peril, it is by His Providence that you were guided to that particular spot.* No single event happens which is not referable to a countless variety of causes, and the Will of the All-Father superintends them all. In truth, prayer is a practice inseparable from the doctrine of a moral Governor of the world, to Whose will all the forces of nature are necessarily subject.

Science has not demonstrated the impossibility of the existence of such a Being. Nay, we may venture to predict that when science is sufficiently advanced, it will make the existence of such a Being a self-evident truth. The miraculous, which is identical with the supernatural and spiritual, will be seen not only to be not impossible, but to be universal—a manifestation of the working of the one final cause to which all phenomena must ultimately be ascribed, the origin of Force, the source of Will, the fount of Reason, the supporter and upholder of man and human society, the first principle which underlies the world and all that is therein.

The PRESIDENT (Sir G. G. STOKES, Bart.).—I will ask you, in the first instance, to return your thanks to Mr. Lias for this interesting paper, and then invite discussion thereon after some communications have been read.

* I may be allowed on this point to refer to p. 240 of the *Miracles Credible*.

The HON. SECRETARY (Captain FRANCIS PETRIE, F.G.S.).—The communications from absent members are as follows:—

The Rev. H. J. CLARKE writes:—

I have been greatly pleased with this masterly paper in which Mr. Lias treats of “Miracles, Science, and Prayer.” In particular I was struck with the suggestion he makes in alluding to the work which appeared under the title “Natural Law in the Spiritual World.” I quite agree with him that the principle thus enunciated should have been reversed; and the words “Spiritual Law in the Natural World” appear to me to embody the gist of his argument.

At the same time, I venture to hold the opinion that much confusion of thought on grave questions would be obviated if, as the antithesis to *spiritual*, *physical* or *psychical* were invariably substituted for *natural*. The latter in its ordinary acceptation is a term of wide meaning, and has come to be freely applied to moral attributes and sacred affections, when they are regarded as being conformable to Divinely established order.

Mr. Lias has, I think, given a very convincingly clear exposition of the truth that the so-called forces of nature are but varied manifestations of a Power which cannot be conceived of otherwise than as being volitional—in short, that, whether the order which is thereby upheld be physical or spiritual, and whether it be to us familiar or unfamiliar, the “Power belongeth unto God.”

The Rev. R. COLLINS, M.A., writes:—

I have read Mr. Lias's paper with much interest and appreciation. The proper use of the terms “natural” and “supernatural” is a matter of some difficulty, and has not unfrequently been discussed. Mr. Lias emphasises the difference between them, as though it were a difference in kind, whereas it appears to be rather only a matter of difference as regards human experience. The main point is reached in this essay—and it is a very important point—namely, that there is, in fact, no hard and fast line between the (so-called) natural and supernatural; but Mr. Lias reaches this by seeing the “spiritual” (or, supernatural) “forces overflow into the natural world.” May it not be asked, whether it be not better to put it thus—that the horizon of what we have called the natural is not fixed, but is capable of extension into what has been called

the supernatural; in other words, that what seems to us supernatural to-day, may on better acquaintance seem natural to-morrow? Indeed, hardly otherwise can we really understand "the harmony" of miracles "with the forces at work in nature," as we now experience it.

The extreme difficulty of drawing any real boundary between the natural and the supernatural comes out in the discussion of "will." Why should "will" be put down as "extra-natural"? (see p. 270). It would at least be a most unnatural thing for a man to exist without a "will." No doubt the "will" belongs to the spiritual order, as Mr. Lias observes. But does not the spiritual belong to the etherial side of the universe? And the functions and energies of the etherial universe—as, for instance, light and heat and electricity—are parts of nature, as viewed by science—that is, they must be ranked in the natural order. The "will" is certainly a part of nature, as well as the actions it governs.

There is an expression on page 277 to which I think perhaps exception might be taken, where the writer speaks of the "introduction into the visible universe of higher laws." Would it not be better to say, the *manifestation* to us of laws not yet comprehended and recorded by us? Also the word "law" in science is not used to indicate a cause introduced for the sake of some result to come, but only as an expression of our conviction of the uniformity of different lines of work, so to speak, in the machinery of the Universe. We may well recall Professor Huxley's clear scientific exposition of this subject in his remarks on one of Dr. Liddon's sermons in the *Nineteenth Century* some time ago. There will, no doubt, be laws discoverable in the constitution and functions of the spiritual body described by St. Paul in 1 Cor. xv.; but we have no warrant for saying that they are, or will be, "introduced," as for instance in connection with the Christian Dispensation. They may have been in existence, though not yet fully perceived by us.

The will and power of God must indeed be regarded as above the energies and forces and laws of the whole universe, and as "overflowing," so to speak, into it. But when the scientist speaks of the supernatural, he includes much more than the attributes of Deity; and bounds what he calls the natural with a very arbitrary boundary.

Is it so, that "the natural order presents itself to the mind simply as the lowest and most mechanical portion of that larger Divine order of which we human beings are permitted only to see the

fringe?" Why "lowest," and "most mechanical"? What should lead us to suppose that the mechanics of earth, in this sense, are in any real degree inferior to the mechanics of the unseen universe? Rather, surely, we arrive at the "grand conception of an universal cosmos" by refusing to see any boundary between the natural and the supernatural, except what the mere ignorance of man causes him to imagine. Is not, in fact, the real drift of Mr. Lias' arguments this?—that, as the ethereal side of the universe, and with it the intellectual and moral, is better understood by science, much that has been regarded as supernatural (or, as perhaps some scientists in their own sense of the word ought to express it, unnatural) will be brought into the sphere of the evidently natural; nature, as we know it at present, being only part of an universal whole, each part of which is related to, and is in harmony with, every other part, as the members of the body are with each other.

The Rev. Canon S. GARRATT, M.A., writes:—

For the most part, I greatly admire Mr. Lias's paper. The passage, including the words quoted from Sir John Herschell on the fourth page, contains in itself the whole thought needed to answer the objection to miracles from the uniform action of laws of force. If force resolves itself into will, such uniformity cannot be necessary, however apparently universal. And the so-called laws of Nature are broken by our own will whenever we lift a weight. A miracle is the observed exertion of a will acting in a sphere above our own.

Supernatural is, as used in this paper, the right word to use, because it does not follow necessarily that the will which interferes with the usual course of events is Divine or good. If it effects what we cannot conceive ourselves effectory, it must be a will belonging to an order of being above our own. But if all force is "the effect of consciousness or will," every exertion of force outside man's powers must be the effect of a will outside man's will; and if that will produces an unknown phenomenon, there is a miracle.

I do not see that Mr. Herbert Spencer's views as to the transcendental origin of the phenomena of space and time do really bear on the question. There is, to my mind, a confusion in them between the impossibility of conceiving what is a Divine attribute—timelessness, with the impossibility of explaining what is a primary human conception—time. Herbert Spencer considers

that time and space are not realities at all, but mere symbols to our mind of realities of quite a different order. I do not think this helps in the explanation of miracles, or is true in itself. These are primary facts, of which time and space are examples, beyond which, because of their simplicity, we cannot grasp and which admit of no explanation, not because too mysterious but because too elementary—incapable of further resolution. Therefore I do not think the sentence beginning “I might also draw an argument” (page 276) bears on the subject of the paper.

The paper, as a whole, appears to me in the highest degree satisfactory and useful.

Mr. DAVID HOWARD, D.L., F.C.S., writes :—

The paper provides an admirable remedy for the, too common, habit of mind, which would, in nervous dread, throw overboard every difficult passage at the first breath of criticism.

We can afford to wait in full confidence that what is really revealed of the supernatural will certainly stand the test of biblical and scientific criticism alike.

The Rev. C. V. HULL writes :—

To my mind the miracles of the Old Testament bear the stamp of reality as plainly as those of the New, and no doubt fulfilled their part in God's great plan, so beautifully explained by Mr. Lias, quite as fully.

The Rev. J. W. REYNOLDS, D.D., writes :—

It is with much regret that I cannot be present at the discussion to-night. I have read the proof of the paper by the Rev. J. J. Lias with great interest. It unites two merits—it is comprehensive and accurate.

Mr. Lias states—“We are encompassed on all sides by forces which do not belong, strictly speaking, to the natural order, and yet which are constantly profoundly modifying that order.”

I quite agree with the meaning of this sentence. It is time that we cease to be merely defensive, and advance with a challenge to our enemies—“To prove that any, even the commonest thing or event, is not a miracle.” They say “a miracle is impossible.”

They will not even discuss it as reasonable, asserting it to be wholly unreasonable; nor will they fairly consider historic evidence. Let us, therefore, cease endeavouring to convince the unwilling by enforcing the fact—that these very men who deny that there was or is any miracle are not able to exhibit one fact, in heaven or earth, that is not miraculous.

Briefly I put it thus—Nature, on the whole and in every part, is a miracle. Nature, I mean the universe, if we speak of mechanical principles—began, if accepted science is correct, where and when the laws known to us were not in being, and could not have been originated except by energy from without. Hence, the whole of nature is miraculous in every part.

The proof is easy. No sooner do we examine matter, force, and the various combinations of matter and force, than immediately below their surface we find matter and forces resting upon eternal energy. All phenomena represent that energy can only be explained by it, and are therefore natural temporal forms of the supernatural and eternal.

To be rid of this, the exponents of physical science refuse to deal with essence—with cause; indeed, can only partially explain modes. Now, these modes are neither more nor less than forms in nature of that which causes and transcends nature.

It may be answered—“The Laws of Nature, so soon as they are laws, are uniform, universal, and unchangeable.” Such statement is unproveable, therefore unscientific. Indeed, the contrary is shown by Mr. Lias in his last two pages.

The argument is fully stated in *The Mystery of Miracles*.

If all and everything is miraculous, it is peculiarly weak to challenge the same principle when it appears in Revelation and Redemption.

The Rev. J. P. SANDLANDS, M.A., writes :—

I have read this paper with very much interest and pleasure. I think it calculated to do great good in counteracting the influence of the “clever people,” and it should be circulated far and wide. Personally, I am very grateful for the opportunity of reading it.

If I may, I should be glad to put his arguments in another form. We cannot understand Law apart from Lawgiver. A Lawgiver must have a Will. This Will accounts for the working of the Law. But also we cannot think of Law without thinking

of Grace. And this alone is sufficient to explain the rationale of Miracles. Hence—Prayer.

I am glad to see that the writer makes so much of evidence. This is the main point, and it is invulnerable.

Some time ago I was discussing a kindred subject with an Austrian Professor—a leading spirit at one of the Universities. I plied him with all sorts of arguments drawn from Nature, but with no good result. I then tried to get at him through his soul; but he soon barred the way to reasoning by saying, "*Ich habe keine Seele*"—I have no soul. This is the logical outcome of the "new notions."

The Rev. WILLIAM ST. CLAIR TISDALL,* M.A., writes from Ispahan:—

For the general contents of the paper nothing but praise is due. I consider it a most valuable contribution to the Institute, and certainly the writer has dealt with this important subject most ably.

Dr. WYLD (a Visitor).—I take exception to the definition of miracles given by the author. He has said that miracles are contrary to nature, and therefore impossible; but I think he has only shifted the question one step, for, if I understand him, he says on the intervention of a Divine Being there is a suspension of the course of nature. I do not hold that. My view of miracles is that they are caused by the direct action of the spiritual on matter. I define miracles not as that which is contrary to nature and not as that which is a suspension of the laws of nature, but an acceleration of the laws of nature.

Professor H. LANGHORNE ORCHARD, M.A., B.Sc.—I think the lecturer has done good service in drawing attention to the fact that man has modified nature by the force of his will; and if he has done so, shall the Creator be debarred from modifying nature by His will? The old standpoint of objection to miracles was that miracles were impossible, but I believe that position has now been pretty generally abandoned.

* Author of *Islam, its origin, strength and weakness*, Journal, Vol. xxv.

Professor E. HULL, LL.D., F.R.S.—I think we may regard miracles as direct interpositions of Almighty power; that is, outside the ordinary course of nature. One great fact is the production of life upon the globe. We know, as geologists, that there must have been a period in our globe's history when organic life could not have existed on its surface, and, therefore, there must have been a time when, after the surface of the crust had cooled sufficiently, the germs of life were implanted on its surface and endowed with those laws of development which have been implanted in organic life ever since, both in the animal and vegetable world.

Now I say it is impossible by any reasonable hypothesis to account for the origin of life on the globe without calling in the interposition of an Almighty outside power.

I might add as another clear instance of Almighty power, gravitation. I might ask, as the author of the paper has asked—what do we know about that wonderful force of gravitation by which the whole planetary system is held together? What do we know about it?—Absolutely nothing, except the law which governs its operation; but of its origin or source we really know nothing whatever, and that has always appeared to be one of those great facts, the physical history of the universe, on which we may fall back for evidence of an extraneous Almighty power.

I do not wish to add to this. I consider, for myself, that the whole physical universe is a standing continuous miracle. I do not consider that these two or three great prominent effects in the history of the physical universe are at all exceptional. They are merely portions of one great physical system, or, as has been well said—

“All are but parts of one stupendous whole,
Whose body Nature is, and God the Soul.”

The AUTHOR.—I shall not occupy the time of the meeting very long. One thing strikes me in looking back, and that is, every time I come here I see a greater earnestness to find out the truth and a less desire to merely criticise. When I first joined the Institute and took part in these debates I used to be in doubt whether the Victoria Institute would do any good—there was so much hypercriticism and desire to show that one man was cleverer than the one before him that I hesitated to continue my subscription; but every time I have come lately I have seen a

strong desire to advance the cause of Truth without neglecting honest criticism and to rather develop the teaching of a paper than to cut it to pieces.

Having made this preliminary remark I will say one or two words on what some of the speakers have said.

I cannot quite understand why Dr. Wyld should have criticised me, for, as he says, declaring that a miracle was a suspension of the laws of nature; when on the principle I have gone I have distinctly said that I did not think anything of the kind. I do not think we ought to say that a miracle is a suspension of the laws of nature, and that is the whole principle on which my reasoning has gone, both in the book I have referred to and this paper. It would be committing ourselves to a very unwise and unsound position. Then, when it comes to a question of miracles being the direct action of spirit on matter, I think that loses sight of one particular point in Christianity and Bible miracles generally.

Then as to the definition of a miracle as being an acceleration of the process of nature, it appears to me that is pretty fairly disposed of. There is no necessity for a miracle to be an acceleration. There are instances in our Lord's miracles, I agree, where they often were accelerations of the laws of nature, because they were designed to do good and all of them were beneficent.

A friend of mine made a very telling remark about the origin of the whole of the Solar system. He said it was supposed to have come from matter (even on scientific hypotheses), equally diffused through space, gradually collecting by the action of gravitation and then great heat, and so on; but if matter were equally diffused through space, I imagine that would be a miracle to start with, even if that scientific hypothesis were accepted.

Allusion is made to the use of the word *natural* in Mr. Clarke's letter, but he has not noted that I defined what I meant by natural—

“The word *natural* in the present paper is regarded as referring to inorganic matter—as including all visible phenomena whose laws are capable of being ascertained. Without definitions argument is interminable. Spinoza, for instance, defines the natural order as relating not only to the visible universe, but to an infinity of things beyond.”

The meeting was then adjourned.