

THE GLOBES

A Lecture

—

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LL.D.

P.G.M.

Delivered in Vancouver & Quadra Lodge

No. 2, G.R.B.C.

Wednesday, August 21st, 1929

To

Most Worshipful Brother Samuel J. Willis

B.A., LL.D.

Past Grand Master of British Columbia

In affectionate remembrance

of many happy years of

Unbroken friendship

Preface

As this paper was written in the form of a lecture to be delivered in the Lodge Room in a necessarily limited time, it was unavoidable that some topics should have received less attention than would have been the case if its publication could have been anticipated. I shall, therefore, attempt here to make a few explanations on points that may invite criticism.

My reading of certain symbols is intended to supplement not to supplant, or in any way belittle our Lectures on them. Symbols present many different aspects according to the viewpoint of their interpreters. To illustrate from the Symbolism of Nature, three British poets (Wordsworth, Hogg and Shelley) have each written an ode to a Skylark. A comparison of those poems will show how different is the impression made by the same object on different minds.

The Progress of Man seems to be treated here along the scientific line only. It would have been impossible in a single lecture to follow other lines of progress—Aesthetic, Moral, Religious. Each would have required different treatment. In Literature, for instance, the earliest poem that has come down to us, the Iliad of Homer, is one of the greatest. The Age of Pericles saw the summit of achievement in the plastic Arts, and so on.

I am optimistic enough to believe that the Moral progress of Man has not lagged behind his intellectual advance. The comparison is difficult, so I did not attempt it. But as an evident mark of moral progress one has only to point to the World Conscience which has been awakened by the fearful suffering caused by the Great War. The civilized nations of the world are, I strongly believe, resolved that never again shall war disfigure this beautiful Earth. Such an awakening is new in the world's history. That is great moral progress; and I believe that it is a long step towards the Brotherhood of Man to which we all aspire. Do I read a prophecy in the legend written in symbols on the chapters of the columns supporting the Globes "Plenty, Peace, Unity"?

THE GLOBES

Brethren:

The importance of the study of Symbolism in Masonry cannot be overrated. The spoken word in our ceremonies cannot, of course, be dispensed with, but unless it is illustrated by our wonderful symbols, its lessons would cease to have the illuminating force which impresses them so deeply on the heart and mind of every member of the Craft. I think it would not be too much to say that Masonry without symbols is inconceivable, that it would never have existed in any form, and that its sublime philosophy and reaching would have been lost to the world.

Most of us have played a game which is not only very amusing but which is also most instructive from a psychological point of view. A number of persons, say twelve, are seated round a table. Number One writes on a piece of paper, a short story, which he keeps beside him for future reference. He then whispers the story to Number Two, who, in turn, relays it to Number Three, and so on until the tale reaches Number Twelve, who writes it down. The comparison of the last paper with the first invariably shows marked divergence not only in the wording but also in the substance of the story.

That simple experiment illustrates the change that must take place in legends bequeathed to us by verbal tradition over a long period of time. Similar change has been found to occur in documents frequently reproduced by manual copyists, though probably in a smaller degree. It is not wonderful, therefore, that History, Language, and even Religion have been influenced by that law of change. Masonry cannot escape it, careful as she is to demand meticulous verbal accuracy in her ceremonies.

But symbols are immutable. The symbols of our Lodge rooms stand eternally as silent monitors defying innovation, and acting as salutary checks to the eternal law of mutation which would, in their absence, render irrecognizable in time the original intention of the lessons of the Craft.

Is it, therefore, too much to hope that every Freemason should feel an intelligent interest in all the symbolical objects and actions which he observes in the Lodge Room and thus avoid the great danger which from time to time threatens us all of allowing close familiarity with them to degenerate into neglect of their importance and indifference to the significance of their presence in the Lodge Room?

Before proceeding to the direct consideration of my allotted subject, The Globes, I beg to draw your attention to other symbolisms of the Lodge, which I consider to be necessary introductions to that subject.

Masons generally agree that the circumambulation of the candidate for degrees represents the progress of man, not only the progress of an individual from his birth to his death, but also the progress of the human race from the earliest period of which we have any record to the present day.

So in the Second Section of the First Degree the candidate is placed in the North-east Corner, the point between the darkness of the North and the light of the Rising Sun. He is representing primitive man. The mental darkness in which man had been wandering for ages is on the point of being dispelled; the dawn of his intelligence is breaking; and the first rays of light are beginning to illuminate a human soul. According to Masonic figure, he is placed in that position to represent the foundation stone on which is to be erected the whole edifice of humanity. Each generation stands, so to speak, on the shoulders of the preceding. The importance, therefore, of primitive man in the scale of human progress is great, though it may appear insignificant. On gazing at a stately and beautiful temple no one ever troubles to look for the foundation stone. But it underlies and metaphorically supports the whole magnificent superstructure. This is the stone, representing the first step in humanity's progress which is personified by the E. A. He is an emblem of the pioneers of our race.

In the Second Section of the Second Degree I seem to perceive a connection among all the symbols to which the candidate's attention is directed on his way to and after his arrival at the Middle Chamber of the Temple.

The F.C. has already passed through all the ceremonies and taken the obligations of his degree. He has arrived at the end of his second circumambulation and is about to mount the third step as a Master Mason.

The beginning of that circumambulation marks a distinct advance in his onward progress. He is no longer a "bearer of burden". He has been promoted to join the ranks of skilled workmen, to lay the stones and place the beams in position. Before the end of his service in this degree, he has acquired more and more skill. He has been entrusted with the duty of fashioning and fixing in wood and stone the beautiful and sublime ideas of the Grand Master Architect. The primitive man whom he represents as an E.A. has become civilized and a co-worker with the Most High in his work of Creation. He has become an artist, and, at the end of his service— the period exemplified in the Second Section to which I have been alluding— he has attained to such a degree of skill as to entitle him to go further. It is proper, therefore, that he should receive such instruction and preparation as may fit him for the serious duties he is about to assume — the duties of a Superintendent of the Work of the Temple. His conductor halts him at the entrance to the porchway leading to the Middle Chamber, and informs him that Masonry is not only an Operative but that it is also a Speculative Science and that the material work on which he has been engaged is not the whole purpose of his existence but that he must also erect for himself a spiritual temple whose materials are Temperance, Fortitude, Prudence, Justice, Faith, Hope and Charity and all the other excellent virtues in which the Most High has permitted us to share. Man's moral or spiritual progress should keep pace with his physical and intellectual advance.

Our brother's attention is then directed to two columns or pillars on each side of the entrance to the porchway. On the summits of those pillars are two globes or artificial spherical bodies, representing the Heavens and the Earth, the work of the G.A.O.T.U.

“Those objects lead,” in the words of the lecture, “the contemplative mason to view with reverence and admiration the glorious works of Creation and impress him with the most exalted idea of the perfection of its Divine Creator.”

Of course the objects of our study must be not the symbols themselves but the things which they symbolize. That is to say, we are to acquire as intimate a knowledge as our opportunities and abilities permit of the work of the Grand Architect in the creation of the Universe represented by the Globes. For how can we as Masons construct any edifice worthy of His approval if we neglect to study, and, having studied, make our own work conform to the designs he has laid on His trestle board for our guidance in our work?

But we cannot appreciate any great work of human genius—be it the work of an Architect, Scientist, Poet or other artist—unless our minds are trained and developed by Education. How much more necessary is the training of the mind when the object of our attention is the work of the Great Geometrician! Without such training we should have eyes and see not, ears and hear not, and hearts without understanding. We should be like Peter Bell in Wordsworth’s poem:

“ A primrose by the river's brim
A yellow primrose was to him,
And it was nothing more.”

The candidate, therefore, is led over the Winding Stairs—the stairs of Education.

The first flight consisting of three steps alludes to the three degrees, implying that Education is not confined to Youth, nor to Manhood nor to Old Age, but is continuous throughout the life of man.

The second flight, consisting of five steps alludes to the Five Senses without which material objects could not be perceived at all. They enable man to *observe*—observation being the first step towards understanding all physical problems. But were we dependent on our five senses alone, Nature would appear to us, doubtless it appears to our fellow creatures, the lower animals who as yet cannot, perhaps never will, be able to place their feet upon the lowest step of the third flight, which alludes to the seven Liberal Arts or Sciences.

The first, Grammar, alludes to speech, spoken or written, without which communication between man and man, and the consequent accumulation of knowledge would be impossible. It also provides for the verbal accuracy of that communication.

The second, Rhetoric, is the art of speaking and writing with elegance and force, using Figures, Allegories and other devices which constitute the symbolism of speech. The third, Logic, the science of Reasoning, teaches the method by which correct conclusions can be drawn from given premises. The fourth and fifth, Arithmetic and Geometry, are intended to comprise the whole science of Mathematics, which is the foundation of Physics, and on which in their turn depend Chemistry and the other sciences which deal with the material part of Creation. The sixth, Music, had a wider meaning for the

Ancients than we now attach to it. According to its old signification it included all the arts presided over by the Nine Muses. It, therefore, refers to the works of Imagination or the Fine Arts generally. And lastly the seventh, Astronomy, which in ancient times was the only natural science known, and was to them the culmination of all knowledge.

I have perhaps dwelt too long on the Winding Stairs. But I interpret Masonry as saying to the candidate: "To understand the work of Creation, you must train your senses for correct observation, and your mind, through the Arts and Sciences, for the arrangement and classification of the facts brought before it by your senses; through Mathematics (including Physics, Chemistry, etc.) for finding the laws governing the phenomena which have been observed; through Logic for checking the conclusions you may arrive at in the pursuit of truth; and the Imagination, which is the basis of the Fine Arts which are represented by the sixth step, plays a vital part in suggesting to the investigator those empirical theories which usually precede all important discoveries. It also enables the Speculative Mason to see in his mind spiritual meanings hidden beneath the material objects which constitute the Universe. Then and only then will you be competent to appreciate in some degree the work of the Grand Architect, symbolized by the "Globes".

The candidate is then led to an outer door leading to the Middle Chamber, where he is challenged, and requires to pass a test to show that he is not an impostor, being warned by the story of the Massacre at the Fords of the Jordan of the fate of impostors; meaning that no error, however closely it may resemble the truth (Shib. and Sib.), can be offered either in Freemasonry or in Science without the certainty of detection.

After successfully passing the Outer Door, and the Inner Door (where he is required to give proof of his work as a F.C.), he reaches the Middle Chamber, where he receives further and more solemn instructions. His attention is directed to the letter G suspended in the East, which, his conductor informs him, is the initial letter of the word Geometry, which in the language of Freemasonry is synonymous with Architecture, and which in this connection may be taken to refer to the Divine Architecture, or Nature. On reaching the East the Worshipful Master further explains the symbol as being the initial of the Deity. The conductor has the power to point out only the operative side, or the material Creation, just as Physical Science cannot go beyond the sphere of matter. The Master alone can disclose the underlying spirit. It is suggestive that both are represented by the same symbol, indicating not only the absence of opposition, the one to the other, but an absolute blending or identity with each other.

The next symbol presented to the F.C. is his wages, which, he is told consist of Corn, Wine and Oil. This is most suggestive, as those objects are the elements used by the Grand Master when he consecrates a Masonic Edifice. Buildings set apart for Freemasonry are dedicated to Freemasonry, Virtue and Universal Benevolence. It is plain, therefore, that the F.C. when he has received his wages has accepted the honour of personal consecration to Universal Benevolence and Virtue—the lessons of which he has already learned, the first in the lecture on Charity in the First Degree, and the

second which was inculcated by the emblem of the square in the Second Degree. He is thereby reminded that Benevolence towards every one of his fellow creatures and Personal Purity of heart and conduct are necessary preliminaries to the search for Truth, reminding us of the saying: "Pure and undefiled religion is this—to visit the fatherless and the widows in their affliction and to live unspotted in the world."

The last symbols of the Second Section of the F.C. degree are the Precious Jewels, referring to the receiving and imparting of knowledge, and need no further explanation. That statement, however, does not imply their insignificance; they are as valuable as their name indicates.

In the remarks I have just made I have attempted, with all humility and diffidence, to show that the symbols in the Second Section of the F.C. degree, hang together, and are intended to prepare the candidate for the Third Degree, as well as to assist him in his study of Nature, required by the symbolism of the Globes which, no less than Education, symbolized by the Winding Stairs, is the duty imposed on every Freemason by this degree. I cannot elucidate my points more in a short lecture, so must leave them as outlines for you to fill up, as I must not forget the subject of this lecture:

THE GLOBES

The compartments of the temple of the world are so numerous and diversified that to do more than to refer to any of them in the most cursory manner would be beyond the scope of a short lecture.

There are two topics in connection with Creation to which we might profitably direct our attention tonight.

1. The Progress of Man.
2. The Unity of God's Law.

God has revealed Himself to us in two great documents:

1. The V.O.T.S.L.

Well has it been called "the inestimable gift of God to man as a rule and guide to his daily faith and practice." No book has ever been written which so clearly lays down man's duty to God, to his neighbour and to himself; which so eloquently tells us of His Fatherly care for all His creatures, which comforts the mourner, and is the source of peace and consolation to the troubled spirit; which is our infallible teacher of how to live and how to die, and which extends to us the hopes and promises of a better life to come.

And all this wonderful message is enshrined in language worthy of expressing the will of the Deity. Macaulay says of it: "The English Bible a book which if everything else in our language should perish would alone suffice to show the whole extent of its beauty and power."

2. Nature

God reveals Himself in Nature. In St. Paul's Cathedral in London there is a slab of marble with the name CHRISTOPHER WREN inscribed on it, and beneath the name the four Latin words, Si monumentum requiris circumspice. "If you are searching for his monument, look around you."

So we may say of the Grand Architect, "If you are seeking for evidences of His wisdom, His power, His benevolence, and the beauty of His works, look around you on this green Earth, and those star-spangled Heavens.

Masonry seems to show us a method by which to approach the study of Nature generally. We are told that the Lodge Room is a representation of the Terrestrial Globe. We know that every material object it contains is a symbol under which lie spiritual truths and that every action in it is symbolical.

By analogy, the trees, plants, animals, stones, seas, river, man himself, are all symbols in the great Lodge Room of the World, and represent deeper truths than can be arrived at by the senses, and which are beyond the power of Science to disclose. There is much more than colour, form or scent in a rock, a rainbow, a sunset, a skylark, or a rose.

I could not, I have not the imagination nor the power of words to interpret this aspect of Nature to you. The subject is too great—too sublime. But, thank God, we can turn to the immortal thoughts of divinely-inspired poets embodied in language which rings with beauty and truth. I shall, therefore, let them express in their own words the meaning I am powerless otherwise to convey to you.

Shakespeare says:

" And this our life, exempt from public haunt,
Finds tongues in trees, books in running brooks,
Sermons in stones, and good in everything."

Hear Wordsworth:

" For I have learned
To look on Nature, not as in the hour
Of thoughtless youth, but hearing oftentimes
The still, sad murmur of humanity
Nor harsh, nor grating, though of ample power
To chasten and subdue. And I have felt
A presence that disturbs me with the joy
Of elevated thoughts; a sense sublime
Of something far more deeply interfused

Whose dwelling is the light of setting suns
And the round ocean, and the living air,
And the blue sky, and in the mind of man;
A motion and a spirit that impels

All thinking things, all objects of all thought,
And rolls through all things. Wherefore am I still
A lover of the meadows and the woods
And mountains, and of all that we behold

From this green earth; of all the mighty world
Of eye and ear,—both what they half create
And what perceive; well pleased to recognize
In Nature and the language of the sense
The anchor of my purest thoughts, the nurse,
The guide, the Guardian of my heart, the soul
Of all my mortal being.”

I hesitate to add anything to this topic, but may I quote, to sum up, these words of Alexander Pope:

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

The Record of the Rocks

Time will not permit me to dwell on that most interesting topic “The Record of the Rocks,” that story, written by God’s own hand, of the early life in our planet. That record is inscribed in books whose leaves are varying thicknesses of rock forming the crust of the Earth. Those layers or strata lie on each other, the older beneath the more recent. But unlike the leaves of a book, they are not now in their proper order. They are scattered about, some lying horizontally, others inclined at all angles, forced out of the planes of their original deposition, and pushed here and there by the gigantic forces of Nature. The Geologist, however, with wonderful skill and patience has been able to bring those apparently disconnected leaves into their proper sequence, and thus to read the marvellous story which is written on them—the story of the formation of the Earth, and of the life which existed upon it in the long ages precedent to our historical records.

The history of the Earth, its inorganic constituents and the plant and animal life which it contains and supports is of absorbing interest, and tempts one to turn aside from the plan of his lecture to talk about it.

It would be interesting to trace the gradual cooling of a blazing fragment from the Sun; the hardening of mud brought down to the sea by rivers, into shales and slates; of sand into sandstone; of oozes formed by the deposition of myriads of myriads of tiny shells on the bed of the ocean into limestones or marbles; and the origin of all those rocks which form our building materials, and from which we derive fuel and materials for our tools and machinery.

One is also tempted to dwell on the first appearance of life in the shape of marine plants and animals, and the gradual adaptation of those forms of life to varying terrestrial conditions. But to do so would be an unwarranted encroachment on your time and patience.

I shall make a jump, therefore, of millions of years to the first appearance of man on the geological record.

Man appears to have direct physical descent from the lower forms of animal life. His anatomical structure is, save in a few small but vitally important details, all exact counterpart of the structure of the higher anthropoid apes; but all scientists, even those who still hold materialistic views, recognize that man's place in nature cannot alone be determined by his physical resemblance to the brutes. God's plan of creation is uniform. The bodies of the lower animals are perfect for their several needs. We must not, therefore, be surprised or feel humiliated by the fact that the design of the human body has a close resemblance to that of the bodies of animals lower in the scale of creation than ourselves, nor need we grudge them the possession of bodies as beautiful as our own. Organs whose functions are identical differ, of course, in different animals according to their environment. The leaves of plants, breathing tribes of insects, gills of fishes and lungs of mammals, all of whose function is respiration, may appear utterly different, though their plan is the same, just as the design of an airplane seems to differ from that of an oceanliner, although the underlying principle of both is identical, the plan differing only to suit the media of air and water in which they are respectively employed.

But man's psychological differences from the lower animals point to a great and probably now impassable gulf, which, according to the great naturalist Wallace, who, simultaneously with, but independently of Darwin, discovered the Theory of Evolution, places man apart as not only the head and culminating point of the grand series of organic nature, but as in some degree a new and distinct order of being".

At some period of his evolution man appears to have left, almost imperceptibly at first, the orbit of the lower animals and entered upon the new and important curve of progress which has been gradually leading him intellectually, aesthetically and morally farther and farther apart from his fellow creatures of the lower animal world. If my figure of speech is not too extravagant, that period was the most momentous in the history of the world—the period when "God breathed into his nostrils the breath of life (the Divine spark) and man became a living soul," the period which led to his becoming worthy of being a co-worker with Him in His temple of the world; the period when he started on the path which is to lead him higher and higher towards the glories of the Infinite.

That period is represented when the E.A. is standing at the N.E. corner.

A rather grand specimen was that primitive man who was first recognized by Biologists as belonging to the same genus as ourselves—the genus "homo sapiens" or intelligent man. Other creatures of somewhat human type have left their skeletons or parts of their skeletons in the rocks. (The term "rock", geologically speaking, is not necessarily hard, but includes deposits of earth, gravel or coal.) But those "sub-men", while showing some signs of humanity, differed from true men in important details which would have

rendered it impossible for them to develop into human beings. They have, therefore, been described as being “not in the same line as man”.

The skeleton of the first true man examined by science was found at Cro-Magnon in the Department of Dordogne, in France. It was the remains of a man 6 ft. 3 ins. in height, with a skull showing brain capacity greater than that of the average modern man.

By the wisdom of the Great Creator who decreed that man was to develop his mind and soul by his own unaided efforts, and whose providence in this respect we can, at least partially, recognize, he was placed in this world naked, physically weak compared with the wild animals by which he was surrounded, without teeth or claws for seizing other animals for food, or as defence against the terrible carnivore of that epoch, unable to run as swiftly as they, to climb trees or to fly, it is more than wonderful how man could have survived under the circumstances.

But his very weakness was his strength. Compelled by the instinct of self-preservation he was gradually developing a mind, which enabled him, more and more as the centuries rolled on, to match the physical weapons of the flesh-eating beasts with spears and darts tipped with flints chipped out by his own skill from larger nodules, to overtake the swiftest deer with arrows discharged from that wonderful invention the bow; to protect himself against the cold with skins stripped from the bodies of his former all powerful enemies, and finally, before the end of the Stone Age to hold his own against those forces of Nature with which his ancestors had been engaged in an apparently hopeless struggle for tens of thousands of years.

Man was as yet not a very attractive creature. His moral nature was poorly developed. He was a tyrant in his family. His table manners were shocking, and he, his wives and children did not spend much time in dressing their hair or cleansing their bodies.

One accomplishment he had which enables us to realize his common humanity. He could draw, and draw uncommonly well. He could draw better than any of his successors down to the beginning of history. In the “Illustrated London News” about the end of April of this year (1929) are reproductions, one in colour, of drawings and carvings of those people, found in the Transvaal, which are simply marvellous. One carving, by means of a flint tool on smooth basalt, of a rhinoceros about to charge, is so realistic and life-like that it has been likened by the author of the paper explaining the drawings to the work Rodin. And there is a painting of a South African antelope, the Impala, the beauty and freedom of which would be admired even if it had been published as the work of a successful modern artist.

The man of the Stone Age was not a degraded being (in the sense of going down grade from better to worse). By his own efforts he was advancing. The day of his future greatness has dawned. Like that of the E.A. at the N.E. corner the light he has seen is as yet feeble, but even that small measure of light has already set him apart from and above his fellow creatures. Like the E. A. also he is the foundation stone of the great edifice of humanity of which we are justly proud— a plain rough ashlar, not smoothed

by the chisel of education, nor carved by the skill of art to take its place on the chapters of stately pillars or on sky-pointing spires, but, nevertheless, honoured above all other stones, being the only stone laid by the Grand Master himself.

So let us honour our primeval ancestor of the Stone Age—not the brute from which we may be physically descended, but the True Man, the Homo Sapiens, the Intelligent Man, who by his own exertions raised himself to that dignity, to whom we owe more than life, from whom we have derived the immortal gift of a soul. If he is uncouth and savage he made the best of his opportunities, and of the materials at his hand. He had no accumulation of knowledge stored in books to guide him. He chipped his flints as his father had done before him, but as time went on he kept improving on the rude implements which had hitherto sufficed for his tribe. But he did well, always going forward slowly but surely.

While it is right for us to be proud of the high intellectual achievements of our race at the present day, we should not forget how much we owe to the stored up knowledge inherited from our ancestors. Our services are perhaps no more important than those of the Stone Men, nor perhaps is our merit greater.

“ All service ranks the same with God.
With God whose puppets best and worst
Are we. There is no last or first.”

The progress of Man after the Stone Age is a matter of ever-accelerated velocity. Slow at first, but growing quicker and quicker as the centuries roll on. The Bronze Age which succeeded the Stone Age shows a remarkable advance along all lines, and brings us up to historical time. Then the Iron Age which brings us up to the present day. Those must be passed over. Nor need one do more than mention the great civilizations of Sumeria and Crete, Babylon and Egypt, India and China, Greece and Rome, each adding to our store of knowledge in Art, Literature, Science and Philosophy. And so man speeded along on his curve of progress faster and ever faster, till, as might have been expected, the last fifty years have seen an advance in his scientific knowledge and in the material comfort of the race, unexampled in the previous history of the Earth.

Thus I have sketched—far too briefly and ineffectually—the progress of man from the period of our earliest record of him up to the present day. Man has progressed so far intellectually, and men of science have added knowledge to knowledge for so long and so successfully that the plan of Creation has been gradually, though of course very far from completely, disclosed to our wondering eyes. Every year, nay, every day, brings us tidings of new discoveries, each more wonderful than the last. One is struck with awe and admiration not only by the beautiful perfection of the work of God’s hands in the creation of the Universe, but also, and almost equally so, by the evidence constantly before us of the intellectual achievements of our fellowman, who by his discovery and understanding of God’s Laws for the ordering of the Universe gives manifest proof that he shares a portion of the attributes of the Most High, and that his mind is an emanation

from the Great Mind whose plans he has begun to perceive and whose laws he in a great measure understands.

The sciences of Physics, Geology, Chemistry, and Biology have been developed to such a pitch of accuracy and perfection, that our knowledge of the Earth, its inorganic constituents, the life history of its plants and animals, and the story of man's progress throughout the ages is daily expanding, and forms a basis on which we may found a closer study and have a clearer appreciation of the wonders of Creation and the dignity of Man.

The Celestial Globe

Our sense of the Wisdom, Power and Beauty displayed in the work of the great Geometrician on our own planet is immensely increased when we contemplate the Heavens, and understand as far as our limited comprehensions permit, the wonderful results of the patient investigations and genius of Astronomers from the times of the Stargazers of Chaldea and Egypt up to the Astrophysicists of the present day.

It is not possible here to dwell upon the glory of the Heavens as disclosed to us by the latter. How they see through their great telescopes the birth and death of worlds; how they tell us the chemical elements entering into their composition, their heat, size and weight, their periodical revolutions, and their distances from the Earth.

Time will not permit more than a reference to the instruments invented to enable the Astro-physicist to reach those tremendous results—the gigantic telescopes, reflecting and refracting, the spectroscope, and the photographic camera. Nor can one attempt to comprehend the sublimity of the genius of those students of the abstract who have evolved the Science of Mathematics, without a knowledge of which the most accurate observations would be comparatively useless, and the laws governing the Universe would never have been discovered.

But one cannot leave the subject of Astronomy which probes into the mysteries of the infinitely great without mentioning another triumph of man's intellect, namely the discovery of a new, and perhaps the greatest proof of the Unity of God's plan of creation— "the Astronomy of the Atom". The discovery that the Atom is not the ultimate indivisible particle of matter, which was the belief of all scientists up to a few years ago, but can be resolved into further and almost infinitely minute elements, is one of the most triumphant achievements of the human intellect since the discovery of the laws of gravitation by Sir Isaac Newton; and its effect on human thought and on the future welfare of mankind cannot be overestimated.

That it should have ever entered into the mind of man to begin the investigation of a particle of matter so minute as to be invisible by the most powerful microscopes seems wildly incredible.(The diameter of an average atom is not more than 1/300,000,000th part of an inch!) But if any scientist had prophesied a very few years ago, that a part of the atom 1/1,000,000 the size of the atom itself could not only be rendered visible, without any change in the power of the microscope, and could be photographed,

weighed, and its numbers counted, he would have been laughed to scorn, if not sent to a lunatic asylum. But all that, and more, has been done by a band of scientific geniuses who are, at this moment, engaged in probing into the secrets of infinitesimally small matter, and on the eve of world changing discoveries.

One of the most amazing revelations that have been made in this very interesting subject is that the atom is like our solar system, with a central nucleus or “sun” called the proton and an attendant satellite, as in an atom of hydrogen, or satellites, as in the atoms of heavier elements. These satellites, called electrons, whose minute size is inconceivable, revolve round the proton, as our moon round the earth, in circles or ellipses, obeying the same laws which Newton discovered as governing the movements of the heavenly bodies.

These protons and electrons also have been found to be positive and negative charges of electricity, thereby disclosing the astounding fact that the ultimate element of which matter is composed is energy or force, and that, in its last analysis, matter cannot be said to be more real than spirit.

And the end is not yet. Scientists are hoping that the time is not far distant when a new source of energy, at present known to be latent in the nucleus of the atom may be liberated and directed to the use of man—energy inexhaustible, and more powerful than any with which we are acquainted, which will solve for all time the question of the world—supply of food and fuel, but which if used for the purpose of destruction would wreck the world. Scientists fear to entrust such a formidable weapon to the world, which they are afraid has not advanced morally so far as it has gone intellectually. The future is in the hands of you, young men, and your children. The choice of dwelling in a world of hitherto undreamt of comfort and happiness, or death in its ruins, will perhaps be placed before you in your lifetime. Scientists cannot desist from their search. Shall man prove worthy of their genius and self-sacrifice?

There seems to be little doubt as to the answer. God, from the beginning, placed man in the world naked, and seemingly doomed to destruction by the powers of Nature. For long ages he has been triumphing over his difficulties, and step by step has been progressing till the present time. Can we doubt our own power to face and overcome any danger which may be in store for us? The lessons of the past ought surely to teach us that difficulty and danger are placed in our way, not for our destruction but for our education, and that as man has never yet as a race succumbed under God’s salutary discipline, so we ought not to fear any trial which he may send us in these enlightened days. We as Freemasons can never forget the solemn moment when we professed our trust in God in all times of impending difficulty and danger, and I am sure that each one of us is ready to renew that profession under all circumstances, come weal, come woe .

Let us say with the poet:

“ I trust in Nature for the stable laws

Of beauty and utility. Spring shall plant
And autumn garner to the end of time.
I trust in God—the right shall be the right
And other than the wrong while He endures,
I trust my own soul that can perceive
The outward and the inward—Nature's good
And God's."

Thus I have tried to show the progress of Man from his early beginning to the present time, in the hope that by so doing we may be inspired by pride in the dignity of our race, and a sense of our responsibility as co-workers with God.

I had intended to devote more time to the discussion of the Unity of the Divine Law; but this lecture has, already, I am afraid, exceeded the limits of your patience.

That wise Roman Emperor, Marcus Aurelius, prophesied it when he said:

" One universe made up of all that is; and one God in it all; and one principle of Being; and one Law, the Reason, shared by all thinking creatures; and one Truth."

We have shown that the invisible atom is but a small replica of our solar system, and that the same Law governs both. Many other striking examples of Tennyson's prophesy of "One God, one Law, one Element" might be made. But I may be permitted to make one other quotation on account of its truth and beauty:

“ The very law which moulds a tear
And bids it trickle from its source,
That law preserves the Earth a sphere
And guides the planets in their course.”

I conclude by adding a few words on the controversy which has disturbed the faith of thousands for the past sixty years—the controversy on the relative value of the scientific and religious methods as guides in the apprehension of Truth.

That subject was dealt with by the eminent astronomer and distinguished mathematician, Professor Eddington of Cambridge University, in a lecture to the Society of Friends, a few weeks ago—a lecture so remarkable that I hope to place a copy of it in our library as soon as I receive it from England. I have some extracts from it in my notebook, but shall not spoil your pleasure in reading the whole lecture by reciting them here. But an appreciation of it in the *Daily News* is so interesting that I shall finish this too long talk of mine by quoting it.

“ The ordinary man confronted with the cocksure assertion of Sir Arthur Keith that at his natural death the spirit within him is annihilated like the blown out flame of a candle, can only fall back with painful bewilderment upon the impalpable intuition of his almost experience. The eager physicist, faced with the irritating enigma of a spiritual world, tries to explain it to us in a mordant phrase in terms of physics.”

Professor Eddington has done a noble service to his fellow beings by showing that it cannot be done and that it never will be done. The world of religious faith is apart from and transcends the world of physics. When scientists have found out all that there is to know about the material universe, man’s belief in his destiny, in the divine spark which has given life to his immortal soul will continue to be the supreme driving force of his conscience existence