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Maistin effoover

# Cne Great Inacrocosm 

DREAMED OF BY SAGES AND SEERS
AND SOUGHT BY PHILOSOPHERS OF
THE REMOTEST AGES. $\not * * *$

# A NEW SYSTEM OF <br> ASTRONOMY 

## SYMMETRY, HARMONY, UNITY

BY

## M. HOOVER,

STUDENT OF COSMOLOGY,

WINNIPEG, MANITOBA.

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## INTRODUCTION.

To want to say something and to have something to say are distinctions with a difference. Having something to say, with unfeigned pleasure, the following pages I address to the wide domains of civilization. Every distinctive age down the centuries produced individuals who with the courage of their convictions, ran counter to the age in which they lived in advocacy of alleged truths, from which class I can claim no exemption, and is, therefore, the only apolngy I can offer for the introduction of the New Astronomy.

The structure of the universe is and has been enshrouded in mystery (a synonym of deity) transcending the mentality of man.

With the profoundest reverential admiration the subject is herein discussed and if I shall succeed in unveiling the mystery surrounding it, allay the fears and awe it has inspired, magnify its sublimity, establish its symmetry and unity in one harmonious whole, my puipose will be accomplished in the beneficence of the human race. The contents hereof demand your free and untrammelled thoughts. To the reader who will divest himself of preconceived ideas this book will prove an open door to the treasures of the universe, and a rest to the sole of the mental foot.

MARTIN HOOVER.

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## HISTORICAL REVIEW AND COMPARISON OF SYSTEMS.

Three systems of the structure of the universe have been in vogue within the past four thousand years.

The Ptolemy, which was that of the Chaldeanns or Magians of Mesopotamia.

The Tyconic was the ancient Egyptian, slightly altered by Tyco Brahe.

The Copernican now in use was that of Pythagorus of ancient Greece.

The system here outlined is vastly different from the above-named; neither Geocentric nor Heleocentric, and may be termed Unicentric. Its proper name is Microcosm (a little world), and consists of a spheroid, named "Solar Sphere," in which the earth revolves. A lunar disc, in a new sense so named, is a slight projection instead of a depression. The sphere has a depression of three hundred and fifteen miles on one side, making a spheroid.

The solar sphere, the earth within surrounded by a luminous atmosphere-these three are the sum total of the universe wherein we live, move and have our being, the three great and only entities.

The old systems fail to account for the phenomena, for the reason they lack a monthly revolution, which is the most essential feature in the whole economy. This movement affects all the movements of sun, moon and planets. Here is what Copernicus says in landation of his system :
"We find what can be discerned in no other scheme -an admirable symmetry of the universe, an narmonious disposition of the orbits, for who could assign to this beautiful temple a better position than the centre, whence alone it can illuminate all parts at once. Here the sun, as from a kingly throne, sways the orbs that circle around him."

Whether sun or earth sways the orbs is debatable. His system lacks the harmony claimed and is decidedly inharmonious in the angular position of the earth circumscribing the almost inconceivable orbit of 190 million miles diameter annually. The planet Mars, like a pin's head in a circle of 654 feet diameter, Jupiter a medium-sized orange in a circle of a $1 / 2$-mile, Saturn a small orange in four-fifths of a mile. The Copernican system has led to great errors in distances and
magnitudes. The disciple of Copernicus will be astounded when he learns the facts of the case mathematically computed to a fraction of a second. To fully appreciate the enormity of the exageration, try to conceive of such distances as the sun $92,000,000$ miles, superior planets from $450,000,000$ to $2,745,000,000$ miles. Astronomers, on failing to harmonize the erroneous system with facts, they, at the expense of exaggeration, harmonized the facts to the system. Some astronomers persistently refused to bow to the system, but in spite of all in thirty or forty years they all enrolled themselves in the Copernican fold, and now for three hundred years these errors have dominated astronomy unchallenged. As for har mony, there is none, till the science of astronomy is lifted out of the mire into which it has been dragged by an erroneous system.

The late celebrated astronomer, R. A. Procter, justly observes, there is little reason for thinking that astronomy would have been retarded a single day even if Copernicus had never lived. It may be asked, wherein has there been any progress since the days of Ptolomy, Hippercus and Plotinus? Are the discoveries commensurate with the superiority of present-day instruments? They have arrived at a greater degree of accuracy in the observation of periodic times, I admit, but discoveries
are a nullity with the exception of Gallileo, who discovered Jupiter's satelites and Saturn's rings through a lead pipe.

In the early stages of historic times, mythology was the predominent science, stimulated by astrology and planetary influence, dominating every science, permeating the various economies-social, political, judicial and religious. Soothsayers were the physicians, and fortune telling was a recognized and necessary adjunct of science. Astrology reigned supreme till the first and second centuries A. D. Astronomy then made rapid strides in the Alexandrean school. Plotinus, Euclid, Hippercus and Ptolomy became the great exponents of the new science, although astrology predominated up to the time of Tyco Brahe and Keppler, playing havoc anong the women for witchcraft and sorcery, from the fifteenth to the seventeenth century thousands of innocent women paid the penalty for an impossible crime. At this time some men of great eminence ran counter to their age, and became avowed opponents of astrology. Gallileo gave it the final death blow. The old jugglery is still practiced and has its devotees among the illiterate to the present day. Keppler spoke of astronomy as the wise mother and astrology as the foolish daughter, adding that the existence of the daughter was necessary to the
life of the mother; showing that he still had some respect for the foolish daughter. He might have said that astronomy was the wise daughter of a foolish mother with more propriety, and not placed the cart before the horse. Up to this time the science of geology was unheard of, and when first introduced was looked upon with alarm as an innovation and disturber of settled opinion. The time is coming when geology will take first rank in the sciences. Astronomy and geology are inseparable, interwoven warp and woof, and may be regarded as phraseological synonyms. One cannot be studied without the other.

In this new philosophy the earth is the primary, the parent of all phenomena, the masculine. The sun is feminine. When you become acquainted with the system this must be the inevitable conclusion. The solar sphere is the common mother, supplying light, heat and sustenance. The scope of this new philosophy is so immense it affects many of the sciences, more particularly geology and meteorology. One decade under this system will make more progress than a century has done in the past. When we contemplate the new and un trodden fields introduced tiereby, well may it be asked, What is the world coming to ? The twentieth century will be an epoch of rennaissance, a cleansing of the

Augean stables. The old world will pass away and a new world will be the heritage of posterity.

Here are a few explodable theories, viz.: The Nebular Hypothesis, Sceptroscopic Analysis of distant worlds that have no existence as entities, Infinite Space as a Reality (it is that quality of space seen in a mirror, and has no existence), and, probably, A Modification of the Newtonian Gravitation to a law of propulsion in "its stead.

We will hear it said, At this rate all our cherished theories will be relegated to the limbo of error. Should this be the result, it need not be considered a disgrace to exchange an old and worn out article for a better. Many of my cherished opinions have gone to that limbo, with the result that I am a wiser man. My conceptions of the universe for the last sixteen years have been different from all others. Of fourteen hundred millions I stood alone. I am now in my eighth decade, and hope to live to see the New Astronomy universally adopted. I an not a Newton in mathematics; I had not the advantages of a college education, although a fair knowledge of mathematics, such as the relations of the are and tangent and quadrature of circles. Many of the problems in this astronomy are involved in the infinitesimal calculas to which I am a stranger. Scientific accuracy depends on abler mathematicians than I am.

What Led to Discovery of Solar Sphere.

## WHAT LED TO THE DISCOVERY OF SOLAR SPHERE.

In the month of April, 1881, I arrived in Winnipeg. One morning, going to work as a professional stairbuilder, I saw the sun reflected upon a new tin roof in the opposite direction from whence she had risen a few hours before, shining in great vigor and splendor. This strange freak led me to think that the structure of the universe was far from being understood-that the law of optics was very deceiving. I began experimenting with concave and convex mirrors, and learned a great deal of optic illusions and the law governing parallaxes and refractions. In the month of December I went to the city of Hamilton glass works and had thiree globes blown of different sizes, with apertures at one end to see into the interior. I then had them mirrored, two outside and one inside, in Toronto. The smallest was mirrored inside and was of much thicker glass than the other two. On experimenting, holding the globe in my hand to admit the rays of the sun through the aperture, the heat of the sun was intensified to such a degree that the globe exploded into a thousand or more fragments. With the others I continued my experiments. On looking through the aperture, while turned to the sun, I saw
a small globe within suspended in mid-air with a beautiful borealis. I was now fully convinced that my efforts were not in vain. In November, 1884, I went to Toronto for the purpose of demonstrating the hypothesis of a solar sphere. I had two hemispheres, eight inches in diameter, mirror-plated on the outside, and experimented to my entire satisfaction. But the difficulties with so small a globe were great. From this globe I learned that the objects reflected changed their positions corresponding to the change of sight. When the earth was placed in the center a vaporous film was observed circumscribing the sphere in the distance in apparent boundless space. On changing the globe to touch sphere, that side became opaque while the other was illuminated as bright as day. I now felt so elated with the confirmation of the hypothesis, "Eureka !" was the exclamation, like Archimides in the bath tub. I now somewhat prematurely proceeded to Ottawa to have the same patented in the name of Microcosm. This sphere was spheroidel, but lacked the lunar disk, the poles of the earth much depressed were supposed to cause the moon and could not show the true cause of eclipses. On my return to Toronto I commenced building a sphere eight feet diameter, regular ovaloid, resembling a chubby egg, with door on hinges for entrance. The woodwork of sphere and globe were completed, glass moulded to

What Led to Discovery of Solar Sphere.
proper form and cut to fit the sphere, which was made in twelve sections. I found I was unable to find means ${ }^{1}$ o have the glass mirrored ; it would cost thrce huudred dollars. No one would render assistance to so hypothetical an enterprise. Having now spent over two thousand dollars in my philosophic project and impoverished myself to such a degree that I was obliged to suspend operations, to the joy of some, but my dismay,--the common fate of common philosophers. This was at a place called Cedar Grove, sixteen miles from Toronto. I now went to the city, stair-btilding for three years. In 1890 I struck for the city in ashes, Seattle, Washington, and followed my trade for four years, holding my discovery in profound secrecy even from my own sons until the first of September, 1909 , when it could no longer be withheld, and thins the world was deprived for sixteen years of the sublimest and most stupendous discovery ever vouchsafed to man. For the last ten years I have been a student of that great storehouse of knowledge, the Encyclopedia Britanica, in its twenty-four volumes, and became familiarized with all the sciences and economies of the age. This has been the stepping-stone to 1 ᄅ publication of the "New. Astronomy." Thus have I ped from the carpenter's bench to the starry heavens, from the jungles of obscurity into the arena of astronomy, fearless of the ordeal that Gallileo had to undergo,
biting the bitter fruit. He had numerous predecessors in ancient Rome and Greece on the doctrine of the earth's rotundity. Where now are those flat-earti philosophers who scouted Antipodes? They dug theis graves to be filled in everlasting ignominy and stupidity. The Solar Sphere is an original discovery, and has no precedent. Since the days of Gallileo the age has evolved to the recognition of free speech in the advocacy of truth. The New Astronomy is easily comprehended, and should prejudices be arrayed against it from any source to strangle it in its infancy, a thousand pens more able than mine would be wielded in its defence, with certain defeat of its antagonists.

The fundamental principle of this philo.sphy is the Conservation and Dissipation of Energy. The earth being the recipient of solar heat on one side for twelve hours in the day, alternately heating and cooling, revolving in consequence, the solar vacuum is the generator of energy transferred to half the earth at all times throughout the year; the earth, in combination with solar vacuum, is the great motor of the universe. The laws of dynamics are comprehended in the upper standard of education of all countries. Upon these laws do I rest all the movements of the universe, terrestrial and siderial.

## CONCISE DESCRIPTION OF SYSTEM.

We proceed to give a concise description of this allembracing system of astronomy. Statistics are taken from the ninth edition of Enc. Brit., compiled by R. A. Procter, and are undoubtedly correct.

Earth's diameter we assume to be 8,000 miles, which is slightly in excess of its real measurement ; the atmosphere at midnight at 45 to 50 miles ; mid-day 1,800 miles in longitude ; the proportions of light and heat received summer and winter are as 29 to 31 ; earth $8,000+2,000=10,000$ diameter of sphere, then $10,000 \cdot \frac{29}{3 \mathrm{t}}=9,685$ in latitude. We have now the dimensions of a spheroid 10,000 by 9,685 miles, making a depression of 315 miles on one side. The above proportions are aproximately correct ; the accurate proportions can be obtained by the solution of a geometrical series in spherical trigonometry.

We will now endeavor to find a basis by which to compute what is termed a "lunar disc" in a new sense. Having learned that 33 days is the duration of an eclipse season and that the lunar disc inust be placed contiguous to the autumn equinox, instead of a depression an aug-
mentation is added, covering 35 by 32 degrees of the are and swelling the sphere at the right-hand side of autumn equinox 250 miles. This disc is in the form of an elips. It will be observed that no other form would adapt itself to the depressed sphere. This completes the solar spheroid.

The chorography of the eartlı is in our day sufficiently known for scientific purposes. Its topography has been ascertained by national surveys and proven to be a spheroid, equatorial diameter varying two miles. From Cape Verde, crossing the Nile and Red Sea, from the $15^{\circ}$ to $28^{\circ}$ north latitude and $16^{\circ}$ west to $16^{\circ}$ east longitude, or 780 miles in breadth by 1,820 miles in length, is the great desert of Sahara, with a depression of 100 to 250 feet below the level of the Atlantic. Ocean. Every 11th moor this depression crosses the lunar disc, once every 346 days, in 33 revolutions of the earth, causing the lunar inequalities which have perplexed the astronomers of all ages. We will revert to this when we come to treat of sun and moon.

This spheroidel globe revolves within the sphere, also spheroidel, on its axis every 24 hours, and onward round the sphere once a month, or $291 / 2$ days.

A retrograde movement polar-wise $50^{\prime \prime}$ seconds annually, or one revolution in 25,000 years nearly. The
earth revolves at a distance of 45 to 50 miles from the bounds of the sphere, performing a slight daily libration of i degree. Its monthly libration is in the form of a semi-elipse 1,500 miles at the winter solstice and 1800 miles at vernal and autumn equinox. Every monthly revolution a loop is formed which is subject to changes from maximum to minimum. At the autumn equinox the loop is more elongated and makes a sharper turn, causing atmospheric commotion and violent cyclones. In this monthly libration the sun, moon and planets syncronise in strict obedience thereto, performing their loops precisely the same. The sun, moon, inferior and superior planets and the innumerable stars-each family performs its part in a grand panoramic mimicry, as it were, in obeisance to their esteemed sovereign, the earth. These phenomena have no existence as entities, and are Will o' the Wisps, or optical illusions. As already observed, the earth, moving within the bounds of 50 to 60 miles from the periphery of sphere, displaces the atmosphere to the side opposite and causes day, while the side of earth close to sphere is opaque night. At this lunar disc the atmosphere cannot be displaced and a gnomon, or image of the earth, i . cast upon the lunar disc. This is the moon in all its changing phases. The appearance of the moon being larger at rising is now satisfactorily accounted for. On the 20 north par-
allel the moon would appear much larger at rising when full than on the meridian, and smaller on the southern hemisphere, as has been fully attested by all mariners in taking lunar observations. On the day side of the earth a similar gnomon is formed, but is invisible in the luminosity of the atmospheric vacuumi until it is projected 21,000 miles in fictitious space as the sun we see. These gnomons i.ever appear where they exist ; they are subject to the law of spherical projection. Our sight travels in the curve of the sphere, and what appears 21,000 miles distant, is, from the fiftieth north parallel, only about 6,000 miles, at the equator about 1,800 miles. This being the case, the heat of the sun has not so far to travel to reach the earth. $92,000,000$ miles is a little too much-in fact, enough to make us blush. I will offer a further explanation as to these gnomons.

Take a dished mirror, presenting yourself in front of it. Your image does not appear in the glass, but between you and the mirror. The sight crosses and your image is inverted, head down and feet in the air. So all phenomena we see in first reflex are inverted. In the second reflex they assume the appearance of their original. An observer on the northern hemisphere would see the south pole of the earth in the moon a few nights when full, a southern observer vice versa. The sun revolving in twenty-five days is now seen to be correct.

The moon's period is about twenty-seven and one-third days; the sun, being negative, would lose two days. The earth's movement is positive, the sun negative, moon negative, Mars positive, Jupiter negative, and Saturn itive, Uranus negative and Neptune positive.

Ti. . . ojection to which planets are subject and the laws governing spherical projection are exhaustively discussed in vol. 19 Enc. Brit. The New Astronomy obeys these laws. They have not yet been applied to astronomy, they do not bend to distances exaggerated forty two thousand fold. Where a circle of 190 million miles is reduced by distance to the size of a lady's finger ring, they cannot apply. Kepler's laws must be applied in such cases.

The refraction of light is difficult to explain. See diagram, left-hand lower corner of solar and sideral sphere, where sun and moon gnomons are shown and the course light travels in; the dotted lines show the course of light from the projected gnomons, the sun in the curve of 42,000 miles diameter, the moon 10,500 miles diameter.

Parallaxes are shown upper left-hand corner of sidereal spheres. They are caused by the earth's movement in solar sphere, and fully account for the apparent loops in all phenomena.

The spiral motion of the moon in disc is shown at right-hand corner of sidereal spheres. This is the unsolvable problem, the querry of ages.

The solar sphere, and earth within, explains the summer solstice. Six months later would enter the winter solstice. An annular eclipse of the sun is shown. Moon's shadow does not reach the earth and a ring round the sun is the result. See "Solar Sphere," page 46.

## INFANCY OF THE EARTH.

This lunar disc was once the cracie of an embryotic world, a rude, chaotic mass of primeval urschleim (protoplasm) ; emenating from which, in quest of nourishment from the bosom of its maternal circumembeance, when, in the language of the Chaldean sage, the morning stars shouted for joy, at a time prior to which there was no time, and time now was; what time has elapsed since that time would be expressed in millions of years. The approximate age may be computed from the equatorial excess of $\frac{26}{2}=13$ miles growth for each pole during one revolution retrograde in 25,868 years. We
assume that the earth develcued from a nucleus of 2,000 miles from the dawn of time to the present. When 3,000 miles would have been added, then $25,868 \times \frac{3,000}{1_{3}}=$ $5,969,538$ years,-the world's age. This is on the basis of uniform development. Its growth may have been much greater in younger days, the sustenance for this growth being supplied as intimated from the solar sphere, enlarging the sphere correspondingly to the earth's growth. In evidence of this we have the astronomic theory that the sun is drawing nearer, and some wild calculations as to the time when the sun would consume the earth. The nearing of the sun is only an appearance caused by the gradual enlargement of sphere and gives no ground for such apprehensions. The quintessence or composition of the sphere is a speculative question. Recent discoveries of liquid air cast their shadows and suggest questions in great variety, viz. : Does the annual rain-fall come from the atmospheric vapor arising from the earth? Would this vapor fill the bill for thirty or forty inches annually? This appears doubtful. If a cannon ball was fired perpendicular at midnight near the equator, where the atmosphere is thinnest, would it ever come down? Would the Newtonian gravitation draw the ball to the ground ? Might not this apparent attraction be a force, or pressure, increasing as you ascend, but sufficient to exert a pressure
of fifteen pounds to the inch at the earth's surface? If it is difficult to breathe at an altitude of 10,000 feet, what would it be at the altitude of 28,000 feet? which has not yet been reached by man, beast, or highest flying bird ; the pressure would be so great that respiration would be impossible, the blood would ooze from every pore. Now, think of forty or fifty miles, supposed to be the ritmost limits of the terrestrial atmosphere, an absolute and entire vaccuum, would now be the surroundings, where matter would be attomized in a moment of time, and rould snly exist in a molecular state.

If water can be made to boil at seventy-five degrees in a vacuum, when two hundred and twelve degrees are required in the open air, how sensitive would this vacuum be to the electric rays of the solar sphere? Its heat is felt instantly on the removal of obscuring clouds, and is in its origin, not far distant- $92,000,000$ miles is out of the question and, without a doubt will be an exploded theory, like many others in the near future.

The analytic composition of the solar sphere is unknown. Its discovery will be an achievement of the 20 th century by a genius who may not yet have seen the light of day. I will not offer an opinion as to what are its consistencies. I have plucked and partaken of
the delicious fruits of speculation to the satiation of my aged hunger, but the solution I will leave to successors, confidently believing that its achievement will not be long delayed. It may, in fact, already be known by some mental Titian, who refrains from expressing his convictions, fearing to become a laughing stock of the incredulous.

## DESCRIPTION OF PLANETS.

## SUN AND MOON.

The vacuum of the solar sphere, with all contained therein from storm-clouds and molecular nebula, projects a gnomon, or focns, 21,000 miles distant in fictitious space. As the sun we see in all the brilliancy of an existing orb, swayed by earth and solar sphere, $s^{4}>e d d i n g$ its vivifying beams at all times upon half the earth and the whole sidereal heavens, its revolutions are negative, the solar vacuum spheres, swayed by the earth is positive, the earth therefore gains two revolutions, so that when the sun has performed 365.25 revolutions the earth has made 367.25 revolutions. This will no doubt appear anomalous and too much for the ordinary reader to grasp.

It has however, the sanction of the most advanced astronomers of our day ; how attained by them, having no knowledge of solar sphere and negative movements, I do not know. It may be by them a theory based on experience and observation but does not belong to the Copernican system.

I do not wish to leave the reader in this perplexing maize, and will endeavor to explain the anomaly by a mental problem. Our measurements of the year are based on solar time. Here are two men, born at the same place, on the same day. One travels east and the other west around the earth, meeting at their natal homes, eacin having performed one revolution around the earth in opposite directions. On comparing diaries, there is a difference of two days in their ages. The one who travelled with the sun lost a day, while the other gained a day. Now, we can see that if you travelled as fast as the sun appears to travel continuously you would never grow older by solar time. Just so with positive and negative movements. Two days would be the difference in the annual revolutions of earth and sun, $365.25+2$ days gained would be 367.25 earth revolutions. We will examine the moon and find there are only eleven moons sidereal time. Then $11+2=15$ subtracted froin $367.25=354.25$, divided by $13=27.35$ days for average sidereal moon. Dividing by
$12=29.53$ days synodical time, to this we have added the precession of the equanox in both cases. To find the respective sidereal month is a difficult task. They all differ in their respective times. The moon's accurate periods can only be obtained by ot ervation through his spiral cycle of 18.6 years, when the same routine of eclipses will be repeated. By this means eclipses can be computed for centuries in advance. This is the Metonic cycle of ancient Greece.

By careful manipulation of earth and moon disk in solar sphere, which is sunk in cover of this book, the period of 18.6 years can be verified by 223.2 revolutions of earth and 241.8 revolutions of lunar sphere, when all will coincide with position of beginning.

241 incommensurable terms may well be said to be insolvable. Admitting the possibility of its solution, life is too short to attempt it. Suppose the moon's variation from the center of spiral disk to outer limits and return were uniform the 241.8 terms might be reduced to $1 / 4=60.45$, but still too complicated a series for practical solution.

The Moon is above all the most erratic and perplexing in its movements. I cannot hope to fathom the antics of this singular nonentity, which has baffled the profession in all ages. It is involved in 241 incom-
mensurable time values. I despair of solving the problem-perhaps cannot and never will be solved-a its movements are spiral (see spheres). What is known as the Metonic cycle was the greatest achievement ancient or modern. It was engraved in letters of gold on tables of brass by Ancient Greece, whence it received the appelation of golden number. Hippecus, of Alexandrian school fame, went one better by introducing epicycles to meet the requirements of the lunar inequalities, thereby avoiding the solution of an incommensurable series. The golden number is still in use and is published in our calendars annually.

We represent the form of the ellipse around which the moon circles annually, showing the constantly changing loops from apogee to parogee. The earth's revolutions do not make an integral number of days, but fractional, requiring 18.6 years to return to the same position. The intricacies will now be fully appreciated.

We have already made reference to the dessert of Sahara. From the south of Cape Blanco, a broad belt extends north-east a distance of 1,300 miles from 50 to 300 miles in breadth. Clouds of red dust arises from this dessert, frequently obscuring the atmosphere from Cape Verde to the American coast. It is said to be possible to create an inland sea south of Algeria and

Tunis of an average depth of 78 feet, with an area of 3,100 square miles. M. De Lesseps visited the locality in 1883 and reported that the canal would cost 150,000 ,000 franks. The greatest depths would be 250 to 300 feet. The moon, like a tangibic object, would move in the direction of greatest vacuity and locate itself in the zenith of this depression for a short time. This may well be supposed to account in part for the lunar inequalities, but the primary cause is constitutionally incorporated in the spherodical globe. This depression extends across the Nile and Red Sea. The flooding of the dessert would not restore the moon to uniform movement but only triflingly affect its nodes. The moon or gnomen never leaves the lunar disk. At a solar eclipse the moon is still within the same disk 14.76 days after full moon. The zodiac having turned half ways around brings the moon to the place of conjunction with the sun. Every 27.35 days the zodiac performs one revolution. In other words, the earth performs a monthly revolution which amounts to the same as zodiac having revolved. This movement is not realized. The appearance is that the moon moves from east to west every night, but in reality it is us that move from west to east. The moon has the limits of a semi-ellipse, 35 by 32 degrees, wherein to play its pranks as a will-o'-the-wisp in obedience to the topography of the earth.

When the position and disposition of the moon is understood it does not require much penetration of thought to arrive at the conclusions herein set forth.

Another singularity of the moon will be noticed, the moon is the gnomon of full size of solar sphere. The gnomon is enveloped in the terrestrial atmosphere, causing the appearance of a moon within a moon, which has often been commented upon but never accounted for.

If the earth was a complete circle, eclipses would be as simple as the rising and setting of the sum, and no golden number would then be required for con rutiting eclipses. The moon would confine himself to the centre of the disk and be as well behaved as the ponderous jupiter, or any other of his near relatives. His ill-behavior is hereditary. His services in the night much more than counterbalance all the trouble he has caused the astronomic profession. His diameter is 39 miles, his libration is that of the earth, about 1,700 miles in longtitude and 1,500 in latitude.

Mércury and the Sun.-The Sun is the mother of Mercury, the smallest of the planets. She keeps so close to her mother that her observation is rendered difficult. Her mean distance is the same as that of the sun, 21,000 miles. See table of elements, page 44.

Venus and Mercury.-Mercury is the mother of Venus, the brightest of all the planets. Like the moon, she exhibits the same phases through her period of 224.70 days. Mean distance, the same as that of Mercury and the Sun. See table of elements, page 44.

The next in order of succession is the planet Mars. The moon is the parent of this phenomenon. Mars inherited much of the eccentricities of his father, but in a less degree. His iniquities are less conspicuous than his father's ; he seems to have more regard for decency in the performance of his annual circuit, and with great familiarity approaches the very precincts of his grandmother's tabernacle, the sun, and appears to seat himself for a short time on the queenly throne, enjoying the felicities of royalty.

Every 686.97 days Mars performs the same circuit with unerring precision. His size is much less than hitherto assigned to him-diameter about 50 miles, mean distance about 21,000 miles.

The above makes Mars a grandchild of the earth. If he moved equa-distant from his grandfather, the earth, the above figurative description would be true. As he does not do so, his orbit extends beyond the sun about 12,000 miles, and makes distance from the earth 30,000
miles in parhelion, and 12,000 in aphelion, which is the most favorable position for observation.

His libration is the same as that of the moon. See table of elemen's, page 44.

Jupiter and Earth.-Jupiter is next in the order of succession, and is composed of earth and solar sphere + moon's sphere + mars sphere + mercury sphere + venus sphere, and consequently exhibits these four planets as satelites hovering round him. You may well be astonished that this has remained unknown till the twentieth century A.D.

Then as an inevitable consequence at a total eclipse of the moon, two of Jupiter's satelites will be eclipsed and the planet Mars blotted from the fermament. If this is not the case there is a screw loose in my philosophy. I have no means of ascertaining the facts and leave it in the hands of the astronomic profession for verification. For distance and magnitude see table of elements, page 44.

Saturn and Jupiter.-Saturn is the last planet that will here be discussed. Jupiter is his parent, and therefore a grandchild of the earth His sphere is composed of jupiter sphere, mars sphere and moon sphere, with four satelites + moon + mars + venus + mercury, making eight satelites. Mars, moon, mercury and venns
repeat their hovering around saturn as they did around jupiter. The excess of solar sphere over and above the earth- 8,000 miles-reflects a luminous ring round the planet, followed by moon ring, mars ring and jupiter ring, mercury ring and venus ring, five successive rings but not always visable. To convey an unmistakeably clear conception of the rings, we will suppose jupiter to consist of four consecutive spheres. We cut jupiter and spheres fair through the middle as you would cut an apple in two. Each half is now a fair representation of his rings, the satelites would be observed in their true positions within their respective rings. See table of elements, page 44.

Asteroids.-The asteroids are a conglomeration of the combined efforts of mars, moon, mercury and venus. They all career between mars and jupiter spheres. They vary in size as the respective planets vary. Those of mercury are so small that they might be buried in a Manitoba farm.

The moon is the primary cause of asteroids:

$$
12 \text { moons, } 3 \text { mercuries } \times \text { by } 4=12 \ldots 24
$$

18 venuses and 57 mars ... . . . 75
Total99

It is possible astronomers discovered the same over and over again. Three were discovered in 1875, making 143 in total up to that time. How many were discovered since then we have no record.

## STARS AND EARTH.

This is a subject so anomalous in its nature and inscrutable to the senses that it has led astronomers to enormous exaggerations in distances, and baffled all attempts at a reasonable solution. This the new astronomy teaches that the stars are not so -mmeasurably distant but are companions of the earth. The cause for assigning them such great distances is quite clear. They do not show any sensible parallax during the earth's annual circuit of a diameter of one hundred and ninety million miles. In accordance with the Copernican system they had to be placed at such distance that this orbit would appear no larger than a ladies' fingering, so as to cause no sensible parallax. The stars being companions of the earth is the very reason they do not show a parallax ; whatever direction the earth moves they must follow.

Observe the dipper in the constellation of Ursa major, always visable from the $50^{\circ}$ north parallel for the entire circuit. Six months later the north star, dipper, sun, moon and zodiac, and all within the solar sphere willoccupy the place of the present south pole. In 365.25 days they will have performed one revolution. Should the reader fail to grasp this movement he will forever be lost in this sidereal maize. We are insensible to this movement but such are the facts. We will now examine the stars composing the dipper, the pointers being about $20^{\circ}$ and $23^{\circ}$ respectively from the north star; those forming the handle of the dipper about $23^{\circ}, 231 / 2^{\circ}, 24^{\circ}$ and $28^{\circ}$ respectively. With a wire, bent to the curve of the solar sphere, about $1 / 4$ circumference in length, place one end to cross pointers ; stick the other end into the earth at the point where it would stand perpendicular to the horizon. By turning the wire once round, notice the circle described by dipper and position on earth. This will convey an idea of the amount of refraction due to each star. These seven stars are in the vicinity of Behring Straits, Alaska, or Asia, and are caused by mountains yet unexplored. The most northerly I am familiar with is Mt. St. Elias, too far south to belong to the dipper category. The Rocky mountains, so formidably arrayed extending from the 70 th parallel to the Andes of South America, at regular intervals reflect a
luminous galaxy of innumerable stars, from north to south, familiarly termed the milky way, in which the bays and gulfs of the Pacific Ocean are faintly visible. To this galaxy all the stars of the universe contribute their images, so infinitesimally small that they appear no more than nemulous clusters. To explain intelligibly how stars are formed I will resort to the dished mirror, say about twelve inches i. diameter and four or five inches deep. Holding mirror close to your face to allow your nose to nearly touch the glass, the prominence of your nasal protuberance reflected in the mirror, conveys an idea how stars are formed by mountains. Your face, all but nose, will be suffused all over the mirror in a vaperous film, and nose concentrated to a distinct nucleus. Upon this mountain nucleus the sun is reflected and a full-fledged star is projected. Stars within the zodiac would appear to increase in magnitude from the setting of the sun to mianight, and then diminish until they are lost in the morning's sun. This is on account of being much nearer at midnight than evening and morning, their distance varies from about 7,000 to 10,000 miles. Stars repeat themselves in other parts of the firmament, sometimes singly but mostly in clusters, much smaller than their original size. So there are stars of stars and clusters of clusters till they assume the appearance of mere nebulous aggrega-
tions. Stars revolving around each other duplicate and triplicate will be satisfactorily accounted for. Nebula are also caused by the terrestrial atmospheric conditions. The red sand clouds, frequently extending across the Atlantic, having their source in the African dessert, would answer well for the nebula in the sword handle of Orion. There are other depressions that may be nebula producing. The Caspian and Dead Sea have similar depressions. The Leonides and parseites will likely be accounted for by hints herewith given. As for comets they are of little account. So long as icebergs will be drifting through Davis and Behring Straits we will have these occasional visitors. If these straits were closed up we would be tolerably free from such scarecrows, at least so far as the northern hemisphere is concerned.

There is another class of phenomenon that may be mentioned, such as floating matter held almost in equilibrium near the limits of the terrestrial atmosphere where vacuum pressure would slowly allow it to descend, increasing in rapidity to free itself from this pressure, and heated to a degree of ignition, descending faster and faster, and if not consumed strike the earth with an explosive sound. In 1862 I witnessed the dropping of such a phenomenon, eight miles from Lake Huron,
passing over my head like a ball of fire with great velocity, two or three thoisand yards in the air; and in less than a minute dropped into Lake Huron with a cannon sound. This was near the village of Port Elgin. What it was could not be ascertained, as it dropped in ten or twenty fathoms of water. Any substance of matter projected into this vacuum world be atomised in an instant of time. If not projected with sufficient force it would gradually descend as above described.

## ON THE PHENOMENON OF PARALLAX.

The causes of parallax can now be satisfactorily explained. All phenomena are subject to this illusion, except at the equinox. Sight travels in the curve of the spheres, and continuous parallel lines have no existence. All lines from any part of the earth meet in a common focus. The earth's shadow never extends a great distance beyond the moon disk. When the sun and moon are in conjunction at an eclipse, the moon's shadow would have no parallax, and extend to the earth. At the vernal equinox the shadow would be much
shorter and cause an annular eclipse. The sphere at this point is more curved, therefore the shadow will be much shorter. Similar at autumn equinox, the shadow would not reach the earth and cause an annular eclipse. The moon would not cover the whole sun ; a ring would be visible round the eclipse. At the summer and winter solstice, the shadow would be longer and cause a total eclipse. The sphere at this point is the shortest diaineter and flatter, more so at the winter solstice. See solar sphere, page 46.

We have now detailed the secular aspect of astronomy as it affects the senses of inhabitants of the revolving earth. The occult aspect is that phase of astronomy that would be experienced by an observer unconnected with the earth's movements, were it possible for such conditions to obtain.: This aspect is fully detaileu by our engineer, as you will see in the next few pages.

The third aspect is that of an observer stationed upon the sun. Moving around the earth, his senses would be differently effected, the earth performing 354 revolutions, 13 times around, gaining 2 each round = $26+354=380$ revolutions in appearance in a year of 365 days. Observer's period would only be 13 revolutions during which he would have seen 14 moons:

## POSITIVE AND NEGATIVE MOVEMENTS.

The earth revolves from west to east as a positive Motor.

The Moon is negative, Mars positive, Mercury negative, Venus positive, Jupiter negative, Saturn positive, Uranus negative, Neptune positive.

These positive and negative movements are the most intricate of all problems, confounding mathemticians unless the science of er rineering is well understood. I have therefore placed an engineer at the right hand corner of the solar and sidereal sphere, unconnected with terrestrial movements, observing the actual revolutions of earth and planets in their positive and negative movements during the year. An astronomer is placed with telescope upon the earth observing the revolutions without regard to positive or negative movements, and on comparing results a great discrepancy is noticed, each contending for the accuracy of their observations. An altercation ensues and charges and counter charges, not creditable to each, other were indulged in. The case is submitted to a competent court of jurisdiction. The astronomer deposes that the
earth had made 365.25 revolutions, and that there were twelve successive moons in the year. The engineer deposes that the earth had only made 354 revolutions, that the astronomer's depositions were false, and that he claims undue credit for one revolntion, that he saw him make one monthly revolution after the year had expired, and that he claims undue credit for one moon after the year had expired, that there were only ereven moons in the year and no more. The jury rendered a verdict for acquittal, that the engineer was correct in synodical time, and that the astronomer was correct in sidereal time. See solar and sidereal sphere, page 46 . This is in agreement with what is said on motion of earth, sun and sphere.

What is now to follow should be written in letters of diamond on tablets of gold. The movements of earth and sphere may be compared to a wheel within a wheel, cog-geared, earth moving from west to east on a moving center of a semi-ellipse. Here we have both wheels positive, very different from planets. The sphere, being a positive movement, becomes negative in the distant sun, gaining one day. The annual revolution of the earth, one day $=$ 2days, which in the above computation is included in the earth's revolutions, 367.25 .

We will take the moon to explain these dianond numbers, which extend to the remotest planets, each having a different number by which their periods can be computed, sidereal and synodic. Their loops indicate their synod. $11+1=12$ is the diamond number synodic, and $12+1=13$ is the sidereal number. These numbers, divided into $367.25-13=354.25, \quad 13 \div 354.25=27.25$ precession of equinox for 13 months $=10$, added to $27: 25=$ 27.35 average-sidereal month. $\cdots 12 \div 354.25=29.52$ precession of 1 month $=.01$ added to $29.52=29.53$. This is a problem similar to the hour and minute hands of a clock. At what time would they be in conjunction after a given hour? $11 \div 12+$ given time, will give the point to the minutest fraction. On the same principle we can find the conjunction of all the planetary movements. In the table of elements the diamond numbers are given correctly without adding or subtracting equinoxial precession, excepting the numbers for moon periods.

I do not claim scientific accuracy in distance or dimensions, as given in the table. I have at present no means of obtaining measurements with exactitude, until an observatory is built of sufficient dimensions no warranted accuracy "can be tabulated. The largest instrument I have had in operation was about two feet in diameter-too small to determine distances or
diameters. The multiple 2 . is nearly correct for the moon and mars, but as we advance to jupiter and saturn the spheres become so large that their arcs are nearly straight, and the projective power is diminished. Jupiter and saturn's diameter cannot be ascertained by the root of any power. Jupiter derives his appearance from the projected gnomons of sun, mercury, venus, mars and moon as satelites diminished to less than half their size. If the sun were 240 miles, ' jupiter would be about 99 , and saturn about 80 . We will now not be so surprised by jupiter having such a resemblance to the sun, as given by R. A. Procter in minute detail.

Table of Distances from the Earth, and Dia. .ters Approximately Computed.

|  | Solar Sphere. | Diameters. | Mean Distance. |
| :---: | :---: | :---: | :---: |
| Venus ............. | $10,000 \div 2 \times 3 \vee 3$ | 11.5 | $\begin{aligned} & \text { From sun } 7.500 \\ & 21,000 \end{aligned}$ |
| Mercury .......... | $10,000 \div 4 \times 3 \sqrt{ } 3$ | 9 | $\begin{aligned} & \text { From sun } 3.750 \\ & 21,000 \end{aligned}$ |
| Sun. ............. | $\begin{array}{r} 10,000 \\ 500 \end{array}$ |  |  |
| $3 \times 3 \times 3=27$ | $\underset{\times 2}{10,500} \div 2 \div 27$ | 191 | 21,000 |
| Moon ........ . . . . | $\underset{\times 2}{21,000} \times 3 \sqrt{ } 3$ | 39 | 10,500 |
| Mars .............. | $\underline{42,000} \times 3 \sqrt{ } 3$ | ¿0 | $\begin{aligned} & 30,000 \text { Parh. } \\ & 21,000 \\ & 12,000 \mathrm{Aph} . \end{aligned}$ |
| Asteruids .......... | $2 \times 2 \times 2=8$ |  |  |
| Jupiter ............ | $\underset{\substack{326,000 \\ \times 2}}{ } \times 3 \sqrt{ } 3$ | 99 | 163,000 |
| Saturn ........... | $\begin{gathered} 652,000 \times 3 \sqrt{\sqrt{3}} \\ \times 2 \end{gathered}{ }^{-} \text {Ring }$ | $\frac{64}{100}=80$ | 326,000 |
| Uranus ............ | $\begin{array}{r} 1,304,000 \times 3 \mathrm{~V} 3 \\ \times 2^{-\mathrm{Ring}} \end{array}$ | $\frac{158}{\frac{1}{2}} 7$ | 652,000 |
| Neptune ......... | $\begin{array}{r} 2,608,000 \times 3 \vee 3 \\ -\mathrm{Ring} \end{array}$ |  | 1,304,000 |

Multiply Solar Sphere from sun downward by 2 in succession. From sun upward divide sphete by 2 for Venus and by 4 for Mercury. Multiply the results bv 3 and extract cube root for diameter, radius of spheres being the distance from the earth.

## Diamond Numbers to Find Siderial and Synodical Periods.

| Names. | Diamond Numbers. | Year in Days. | Siderial <br> Period <br> in Days. | Synodical Period in Days. |
| :---: | :---: | :---: | :---: | :---: |
| Venus | $\begin{array}{r} 1.6255 \div \\ .6256 \div \end{array}$ | $\begin{aligned} & 365.25 \\ & 365.25 \end{aligned}$ | 224.70 | 778.93 |
| Mercury | $\begin{aligned} & 4.1524 \div \\ & 3.1547 \div \end{aligned}$ | 365.25 465.25 | 87.96 |  |
| Morcury | $3.1547 \div$ | 365.25 |  | 115.78 |
| Sun | 365.25 | 365.25 | 1 year | 354.25 |
| Moon | $\begin{aligned} & 18 \div \\ & 12 \div \end{aligned}$ | $\begin{aligned} & 354.25 \\ & 354.25 \end{aligned}$ | 27.35 |  |
| Mars. . | . $5317 \div$ | $\begin{aligned} & 365.25 \\ & 365.25 \end{aligned}$ | 686.96 | 778.93 |
| Jupiter | $\begin{array}{r} .084303 \div \\ .91573 \dot{+} \end{array}$ | $\begin{aligned} & 365.25 \\ & 365.25 \end{aligned}$ | 4332.58 | 498.86 |
| Saturn | . $\begin{array}{r}.0033955 \div \\ .96604 \div\end{array}$ | $\begin{aligned} & 365.25 \\ & 365.25 \end{aligned}$ | 10759.21 | 378.09 |
| Uranus | $.0011902 \div$ $.9880 \div$ | $\begin{aligned} & 365.25 \\ & 365.25 \end{aligned}$ | 30686.82 | 369.65 |
| Neptune | $\begin{array}{r} 00607467 \div \\ .9939 \div \end{array}$ | $\begin{aligned} & 365.25 \\ & 365.25 \end{aligned}$ | 60126.72 | 367.48 |

Copernican System.

| istance from Sun, <br> Miles. | Diameter, <br> Miles. |
| :---: | :---: |
| $66,184,000$ | 7,510 |
| $35.392,000$ | 3,158 |
| $92,000,000$ | 851,900 |
| 240.000 | 2,000 |
| $139,000,000$ | 4,363 |
| $475,000,000$ | 84,846 |
| $87 \cdot 2,137,000$ | 70,186 |
| $1,753,869,000$ | 33,245 |
| $2,745,598,000$ | 37,275 |

Divide the diamond number in first column into $\mathbf{3 6 5 . 2 5}$. Moon number into 354.25 , for periods of sun, moon and planets.


## ENGINEER'S ADDRESS TO ASTRONOMERS.

Gentlemen of the profession,
Having occupied the position of an occult scientist, and now waked up to the realities of this mundane sphere of life realizing and appreciating the accuracies to which you have attained in the observation of periodic times of Celestial phenomena, I tender you iny apology for the displeasure caused in controversy, I now bury the hatchet and extend to you the right hand of fellowship.

In the interests of science and common humanity, I appeal to your unbiased judgment on the New Astronomy revealed by the Microcosin. It is necessary to impress upon your mind the importance of three essential and indispensable factors to be taken into account to arrive at accurate conclusions. First, the Law of Spherial Projection ; Second, the Law governing Parallaxes; Third, the Law of Refraction of Light.' These laws are precisely analagous to the law of optics. When
an object is imaged upon the shifting retina of the human eye in syncronism with distance, corresponding precisely to the parallexical shifting of the earth's centre of rotation, projecting its image upon the lunar disc in syncronism with varying distance, caused by the daily and monthly libration of the earth,-with a knowledge of these laws we have a set of keys by which to unlock the combinations of the great microcosm.

A star has arisen in the east, never more to sink below the intellectual horizon. You are now in possession of the keys that will open wide the doors to the hidden arcanum of the universe. Pass them on to posterity's archives of nations urborn as an achievement of the dawn of the twentieth century of the Christian Era.

You may now discard your instruments and solve the problems by mathematical computation. The errors of 300 years have been victoriously combatted, the golden number of Meton, which has served 2,500 years and now retires to its superannuate stage in a wreath of honor.

The "Diamond Numbers" discovered by one Martin Hoover, of Winnipeg, Manitoba, will take its place through the centuries of succeeding cycles.

The edifice of astronomy is now founded upon a rock, with its dome towering to the altitude of the presumably undiscovered Pleiades, in an unfading halo of everlasting glory.

HIPPARCHUS, B.S.C.E.

The annexed cut shows the projected gnomon of sun. The moon's shadow does not reach the earth, a ring around the sun is therefore unobscured.

The gnomon of moon is shown at zero. In this position no eclipse of the moon could obtain until the earth advanced about 14 days, so that when the depression of the Sahara would cross the lunar disk a total eclipse of the moon would follow. If only the outer limits of moon disk crossed the Sahara the eclipse would be partial.

When the moon rises within the limits of from 15 to 25 degrees north latituce the eclipse would be total.

For the purpose of showing the two aspects of eclipses in one cut sun and moon, we show the gnomon of moon near zero of sphere. It will be observed the moon is now in conjunction with the sun. 14 days later the lunar disk will be at zero or autumn equanox with its loop, when an eclipse will take place.


SOLAR SPHERE.
Showing Annular Eclipse of Sun, and Moon approaching an Eclipse fourteen days later. (See Light Refraction of Vcl. 14, Enc. Brit.)

## DIRECTIONS

For Manipulating Earth and Moon Sphere, Three Sciences Comb'ned, Astronomy, Geology, and Meterology-See Plate Sunk in the Cover of Book.

Tarn Zero of earth to Autumn Equinox and loop 1 also to Zero, in this position a double header cyclone results. Now turn earth in direction of arrow $30^{\circ}$, and moon loop 2 backwards to Zero and so on til $0^{\circ}$ of earth and moon loop 1 again coincide at autnmn Equinox which will come to pass in about 18 years for another tearing cyclone. Every antumn Equinox will cause great atmospheric commotion but less in degree. Always take notice of the position the earth holds in the sphere, any narrow cramping will cause storms more or less violent. You can also foretel high and low tide by the position sun, moon and earth occupy. By studying the earth's movements every mathematician can be at once astronomer, geologist, and meterologist, and while away his leisure hours in the noble pursuit of knowledge.

On the opposite side is sphere and earth for purpose of geology and geography. Its movements are latitudinal and brings the earth to all possible positions in the sphere.-See cover of book.

## ASTRONOMIC REVIEW.

There is a great difference in distances and magnitudes and who is to blame, not the profession, but the erroneous system of Copernicus which has led them astray. For centuries of ardent study with the most approved instruments astronomy has made no essential progress, gazing at planets, comets and sun spots, endeavoring to analyze phantasmic worlds from 33 million to 2,720 million miles distant by sceptroscopic analysis, not realizing that they were analyzing the very air they breathed, and what has been accomplished ? simply nothing, excepting Gallileo discovering jupiters, satelites and saturns rings through a lead pipe. I do not mean to cast reflections on the profession. I was born with a love of astronomy. Had I gone to an observatory in my youth, gazing through telescopes, I would ${ }^{\circ}$ no doubt be a faithful disciple of Copernicus and perhaps have analyzed sun, moon and planets. Not having done so I have reason to feel truly thankful. I have analyzed at one stroke sun, moon, planets and stars, and can give their analysis should I be called upon to do so. Humiliating as it may be to astronomers let them stand erect like men of an honorable profession and accept the inevitable, the old will be forgotten and the new will take its place.

## PRE-EMINENCE OF GEOLOGY.

This treatise commenced on astronomy and ends with the preponderence of geology. So intimately are these sciences connected that they are about synonymous. Astronomy gracefully yields to the modest and incontestable claims of geology for supremacy in the rank of sciences. The earth possesses all the elements for man's well being and happiness, it yields the fruitions of life to its billion inhabitants in due season. 150 years ago a babe was born, (Geology) destined to become the monarch of science struggling for an existence by the perversity of the age, has now grown to the full stature of manhood and henceforth will assume the sovereignty of the citadel of man's intellect. The language of a Demosthenes would fail adequately to extol its merits. I san not express the magnanimity of its capabilities. My bosom heaves with throbbing emotions in the contemplation of its incalculable unfolditgs. Look to the sun you see its image, look to the moon you see its image, look where you will to the siderial heavens you see the image of your foot stool and finally the earth is our tabernacle in time and our sepulcher in death. Grave now may gain its victory when death has lost its sting.

## ON THE MICROCOSM.

Having had descriptive recourse to all known expedients short of ${ }_{8}^{\prime}$ a Macrocosm in demonstration of causes of phenomena, I feel as though something more was wanting which want can only be supplied by the erection of an observatory or Microcosm.

If built by private enterprise a fee for admission would necessarily be exacted. Dimensions of 40 feet diameter would cost from 25 to 30 thousand dollars. Being familiar with all the requisites for automatic movements I would furnish details for the erection of same in the City of Winnipeg.

It would be patronized from all parts irrespective of fees charged, and also a memorial of the greatest discovery, ancient or modern. Observatories should be built by government as national institutions to familiarize the movements of Celestial phenomena without the aid of telescope.

I would be pleased to hear of any movement in such direction either in Winnipeg or Toronto. The latter is the place of the final discovery of the Microcosm in 1886.

## THE FAMILY CIRCLE.

Twinkle, twinkle little star,
How I wonder what you are,-
This is the song of childhood in the simplicity of infancy. Father, mother and children gather in the evening family circle in the home sweet home when the sun, moon and stars become the absorbing subject for the evening. Questions are asked by children and answered by the father in the most pathetic manner.
"How big is the moon, Pa , and how far is it from us?" "The moon is 2,000 miles diameter, and 240,000 miles distant."
"Why it don't look that big, just last night I saw it in a tree top not bigger than mama's wash tub. Do people live in the moon?" "It it reasonable to suppose that the moon is inhabited by beings constituted for a rare atmosphere like that of the moon; respiration would be impossible for us in so rare an atmosphere."
"How big is the sun, is it so far off also?" "Yes, it is immensely further off. It is $95,000,000$ miles distant and all the worlds in stellar space would not make half its bulk."
" Pa, how do you know it's that big?" "Astronomers tell us so, who make it their study by aid of powerful telescopes and should know all about it."
"How big are the stars, are they so far off too?" "Yes, my dear child, immensely further off and are much bigger than the earth we live on. $95,000,000$ miles double would be a circle of $190,000,000$ miles diameter. This ring, large as it is, would appear no bigger than your mama's finger ring when viewed from some of the stars. Light, you know, travels at great speed would require many years to reach us from some of the stars."
" Pa , do we not see the same stars every night, how can so many years elapse from one night to the next?" "That is quite simple; when the light has once reached the earth it remains for all time, by turning round with the earth's revolution we catch a glimpse of the same stars night after night."

The child is now reconciled to the anomaly, accepts the reasoning as incontestable truth. Its mind is now sufficiently offuscated to accept the most palpable fallacies of the mysterious universe.

## SUMMMARY OF SYSTEM.

If there is anything the Microcosin does not account for it is unknown to me what it can be.

The solar sphere and earth revolving within accounts for all phenomena, viz: Day and night, the seasons throughout the year and solar time variations.

The tropics and declination of sun 23.5 degrees and precession of the Equinox.

The moon and all its peculiarities.
The eclipses of sun and moon in their manifold varieties.

The librations, maxinum and minimum, of sun, moon and planets.

The parallaxes of all phenomena from sun to neptune.

It reveals the planets in pairs librating on one centre.

It proves beyond all doubt that the semi-ellipses of all the orbits are caused by the spheroidel form of solar sphere.

The sun and inferior planets are a reflex' of sphere, Moon and Mars.

Jupiter and Satelites are a reflex of Sphere, Moon, Mars, Mercury and Venus.

Saturn and Satelites are a reflex of Sphere, Moon, Mars, Mercury, Ventis, and Jupiter with his Satelites.

Uranus and Satelites are a reflex of Sphere with all contained therein.

Neptune the same. Satelites are now nearly all inivisibly small.

This system postulates the iniversality of matter to the full limits of existing space, and a world without end.

The true astronomy is now given to the world and it can not be annihilated. There is not the shadow of a probability that it is untrue. It may be opposed on pecuniary grounds but never refuted. It might be crushed for a short time but truth crushed to earth is sure to revegetate with tenfold vigor. Its truth is demonstrated by astronomic data. It is proven by mathematics and verified by observation and experience, therefore invincible in every respect, and will be hailed as the projenitor of science and the revelation of the structure of the universe.

## A POEM.

The earth within the solar sphere Proclaims a power divine; Sun, earth and sphere in one combine, To constitute this mighty shrine ; The dazzling rays of day and night, Bespeak a realm of power and might.
Omnipotence is here revealed, No longer now in miths concealed. Anthropomorphic forms will vanish,

From mind gross superstitution banish ; Let every clime and every tongue, Thy praises shout in verse and song, From all the Zones antipodes, Declare the three great Enteties.

## SYNOPTIC BRIEFS.

The eatth or sun swaying of the orbs is a debatable question. I have on several occasions at social gatherings introduced the analogous question, whether going round a tree with a squirrel on the side opposite you, moving around the tree to hide itself as you advance, would you go round the squirrel? In this question the disputants invariably decide about equally for pro and con, and some suddenly change from pro to con and vise versa. It may be reasoned that the dynamic force of sun does sway the earth as you would sway the squirrel, like nature is said to hate a vacuum, and I will concede this to count one to Copernicus. I would not dispute its being geocentric or heleocentric, it is both, the solar sphere being the primary sun.

Siderial and synodic are interchangeable terms. What is synodic to us occupants of the revolving earth is siderial to our engineer.

There is one revolution we have no name for. It is the annual revolution of the Zodiac and has no moon, but counts one, making 13, but only 12 moons. The 12 th. moon is completed in the succeeding year $=11$
moons in the derial year as experienced by our engineer.

The Solar Spheroid is the true cause of seasons Summer and Winter. Were it a sphere neither years nor seasons could obtain, days and months would be the only data by which to measure time, eclipses would be regular every month, sun, moon and the planets all have the same periods.

There is some ground for believing that the true Cosmology was well understood at some remote epoch, long before historic times, which can not be traced beyond 5,000 years, and through changes of language, translations and traditions, interpolations have crept in till only a faint glimmer of it was left at the earliest period of historic time.

Man as an image of the Macrocosm vaguely points (in a physiological aspect) to a philosophy long anterior to Egyptian or Hindo mythology. So does the Egg world of ancient nations indicate a scientific cosmology of remote epochs. There is little reason for thinking that science and literature had never obtained before historic times. When we peer down the thousands of centuries that span the epochs we may reasonably conclude that the intellectual development of the age is only a repetition of a remote past with one step in advance. Such
seems to be the slow but sure achievements of evolution. The Hellenic and Roman civilizations are as but yesterday, and belung to the catagory of the present epoch. Had not a seal been placed upon the lips we would have been spared the dismal gloom of fifteen centuries of darkness and stand pre-eminently above the present mantality of man. It may be doubted if the present age has yet attained to the intellectual caliber of the ancient Greeks. It takes a longer time to remove the intellectual shackles than it does to apply them. We have a tacit recognition of free speech but there is still a remnant of a barrier slowly subsiding.

The Sun-dial of the Copernican astronomy is correct as to the periods of sun, moon and planets, but the hands upon the dial are enormously exaggerated in length. It will be observed that sun hand $92,000,000$ and moon 240,000 could be reduced 4,000 fold without affecting the mechanism in periods, provided magnitudes are reduced correspondingly. A more extended knowledge of the laws of refraction of light will harmonize the New Astronomy with the Old and remove the incongruities attaching to the Copernican system.

## APPENDIX.

Since the publication of this book, the lunar cycle, moon's inequalities and Mars periods have all been achleved mathematically; and greater yet, we have succeeded in locating the mountains that are responsible for the stars forming the Dipper, and that, too, where they were never suspected to exist.

For Lunar Cycle we take the Synodic Moon 29.52 days $\frac{1}{4}+.49 \times 2=15.74 \times 13 \div 11$ $=18.6$ years.

For Lunar unequalities we take Nodical Moon $27.25 \div 8$ which is the same as completing the quidrants $=3.40$ $+49+354.25 \div 13=27.54$ anomolistic revolutions.

Half $=1.70-.49+354.25 \div 18=27.34$, Tropical revolutions.

Half $=.85+.49+354.25 \div 13=27.35, \mathrm{Si}-$ derial revolutions.
$-.49+354,25 \div 13=27.21$ Nodical revolutions.
3.40 is the monthly libration, . 49 is the daily libration alternately + and -. We can now see that Moon's parallax is a response to the Earth's libration, the Earth's monthly movements are spiral like the Moon's.

For planet Mars we take yearly revolution $=354.25-11 \times 2+.50=687-$ precession of equinox Siderial.
$354.25+18+12+11 \times 2-.59=780-$ precession of equcnox Synodic.

What is said on page 35 as to sta: being companions of the Eaith appears paradoxical, but investigation will prove it beyond a doubt. Insciutable as these phenomena have hithe:'to been, it can now be incontestably established in the following manner: Place mountains upon a small globe relatively to those of the Rocky Mountains. From Mt. St. Ellas, Alaska, to Mt. Whitney in Callfornia.

From Mt. St. Elias draw a line to Mt. Brown about 20 degrees, continuing one and one half degrees to Mt. Hooker. These mounteins are in British Columbia near the source of the Saskatchewan River. From Mt. Hooker to 1 Mt . Baker, Washington, near international boundary, from Mt. Baker to Mt. Olimpus, opposite Puget Sound, from thence to Mt. Hood, Shasta and Whitney completing the handle of the dippor.

Other mountains contiguous prove those named to compase the constellation of Ursa Mager. Near St. Elias on the soyth is Mt. Fair Weather; about four dogrees wast are two cones, these aie quite visible in the vicinity of, the North Star, which is Mt. St. Elias.
Now hold this mountain paaked globe oo outlined, but not resembling the dipper before a concaved mirror about one half larger than globe, and behold the
constellation of U:sa Mager projected to the noctuinal heavens.
He:e can be osen the law of spherical p.ojection perspective, viaibly in ope:ation. See page 21.
The handle of dipper does not appear as indicated by diag: am on globe standling off f:om the North Star. Earth's opheicity changes direction of handle longitudinal.

The apparent circular movement of the dipper is caused by the Earth's monthly lifb:ation, the North Star eyncronizing with the dally libration.

## Table of Mountains Composing Dipper.

| Latitude | I, ongtitude. | $\begin{aligned} & \text { Figh. } \\ & \text { High. } \end{aligned}$ |
| :---: | :---: | :---: |
| Mt. St. Elias. . 60 | 140 | 17,000 |
| Brown.... 54d | 118 | 16,000 |
| Hooker ... 52 | 116 | 15,700 |
| " Baker .... 48 | 120 | 14,000 |
| Olimpus .. 47. | 121 | 14,000 |
| $\because$ Hood ... 46 | 121 | 15,500 |
| Shasta.... 41 | 122 | 14,000 |
| Whitney . 36 | 120 | 15,000 |
| - Popocatapel 18 | 98 | 17,000 |

F'rom Mount Hooker and Mt. Brown, in line with St. Elias on the oppasite side about 20 to 30 degrees, are Siberian, Tibitean and Himeleyan mountains, composing the constellations of Casseopea, Perseus and Leo. Those of Tibet can justly lay claim to being the highest monutains on the globe, rising from is plateau of 10,000 to 17,000 feet to an altitude of from 20,000 to 29,600 feet above
sea level, therefore appearing less than thase of the Rockies rising from a plateau of from 2,000 to 4,000 feet, to an altitude of 14,000 to 17,000 feet above cise level.

We have no rellable orography of the Siberian and Tibitean mountains, the latter until recently have been accessible only via China from the East, or India, from the Northwest. Travellers on reaching Tibit were speedily told to decamp.

Maps were not cornipiled by regular suivey, but at random, and scanty information by the natives.

This hidden country claims to have had a population of from twenty to thility-three inillion, eleven hundred years B. C., now annexed to the Chinese empire, with a population of from five to six million.
It is only of recent date that a perfect orography of the Rocky Mountains was cmpiled; in the days of Gallileo, Tycho Brahe, and Kepler, the mountains were unknown, and since the introduction of telescopic astronomy by its enchantments, the door was barred to reasoning on the subject, and this great discovery. delayed till the dawn of the twentieth century, and thus was perpetuated for thiee centuries and a half, by great institutions of learning, the hugest errors that ever held the human mind in bondage.
Under the Copernican system progress was 'mpossible; this great discovery would probably have been made three hundred years earlier had Copernicus not appeared upon the scene.

The perplexing question was the absence of one hundred and ninety inillion miles star parallax, stars then known to be fixed or nearly so; a happy idea strucik Copernicus to place these stars so far distant that their parallax would be insensible, the problem was solved. and Copernicus lauded as a genius, girdled with honor and monumental fame for three hundred and fifty-eight doleful years.

When this hazy incubus of perverted asitronomy, this Copernican legacy of error, has been buried and forgotten, then, and not till then, will the acience of astronomy cease groping in the dark, and be based on scientific demonstrable postutales. Take heart, Astronomy, the day of your deliverence is at hand.

What is said on page 23 asy to approximate age of the Earth, $5,969,538$ years, could not, with present conceptions of the Earth's shrinkage, be sustained and would extend its age to probably $600,000,000$ years.

That there is an equatorial denudation by erasion there can be no doubt, and consequently a sedimentary distribution by ocean currents building up the Arctic and Antarctic regions.

That there is also an internal expansion will ultimately be established. What can the upheaval of ocean bottoms be but an internal expansion, raising continents and submerging in part thase now existing, changing the entire surface of the globe during one great cycle of 25,868 years. Thirteen
miles giowth would be less comparatively than the pulsation of the human heart.

Peihaps the mythical Atlantis of the ancient Greeks, and also the Noachean deluge, had some foundation in fact.

As to comets, their birthplace may eventually be found on the borders of G:eenland, where Glaziers are periodically formed, or nearly so, drifting in to the floating depth of sea, , with nume:ous fragments and pack ice followIng in its trail as lengthy appendages like a tall, they would be most likely to appear in the constellations of Casseopea, Periseus and Leo.

These are the traditional scarecrows, forerunners of calamities that never obtain.

A desire is felt to express to the reader regret that the authorship and volume of this book are not more, commensurate with the magnitude of the subject.

It is a finst and long delayed attemoth to record the thoughts of a lonely oxplorer in a bewildering maze, on a subject unfathomable in depth, infinite in extent, and embracing every known field of thought and many hitherto unknown; written in a language foreign to mother's tongue (viz., German) ; on these grounds the indulgence of the candid reader may reasonably be expected for its shortcomings.

Errata. Page 41, read Siderial for Synodic.


