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# HIGHER SCIENCE



*of the*  
**MOTION of MATTER.**  
*A MAGAZINE DEVOTED TO*  
*SCIENCE, TRUTH, INVESTIGATION*  
*& MATTERS OF GENERAL INTEREST*

**OCT., 1902.**

**FRANKLIN H. HEALD**  
EDITOR AND PROPRIETOR  
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**RECAP**

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# HIGHER SCIENCE

Of the Motion of Matter.

Formerly The Procession.



VOL. I.

LOS ANGELES, CAL.

No. 12

## LAWS OF PROCESSION THEORY.

**M**ATTER is kept in ceaseless motion by the expanding force of heat, forcing or swelling it upward from the sun, as gas; and its contracting again into dust or ponderable matter by cold or the lack of heat, in which contracted condition it can again fall or return to the sun (I.\*)

II. When expanded gas from the sun reaches the outward limit of the solar system, the cold is so intense (Est. 4000° F.) that it can no longer remain expanded, and it crystallizes into dust or solid matter, and begins to collect in bodies and fall towards the sun as planets, moons, comets, meteors and dust (23).\*

III. When returning matter falls into the sun, the collision of falling and the friction of its chemical disintegration and reuniting with the matter of the sun, produces exactly the same amount of heat which it originally cost the sun to expand and force it out to the limits of the solar system (7).

IV. When matter is expanded by heat into gas at the sun, it leaves the sun's surface at its equator, which is its most active part, and travels in a constantly increasing orbit around the sun, from right to left, at the rate of 4000 miles per hour (32).

V. When expanded matter is contracted into dust, at the outward limit of the solar system, it is traveling in an orbit around the sun from right to left at the rate of about 4000 miles per hour, losing some speed by friction.

VI. At the outward limit of the solar system, where gas is crystallized into dust, there is a zone of nebulae clouds, not dissolvable into suns, and at right angles with the milky way, around the outside rim of the elliptic of the solar sys-

⊙Numbers in parenthesis refer to Notes in "Procession of Planets."

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tem, where the new worlds are gathered (See March magazine, page 2).

VII. As a new world is gradually gathered in the nebulous region outside of Neptune's orbit, it is a collection of motion as well as of matter, as every atom of gas and dust carries every motion of the sun, and did not lose the motion of an orbit, or any other motion of the sun, as it was pushed up from the sun by expanding matter below.

VIII. As ponderable matter falls back to the sun, it increases its speed along its orbit, in the same inverse ratio with which it decreases the diameter of its orbit (255).

IX. As ponderable matter falls back to the sun in an orbit, it increases the speed, according to the law of falling bodies, minus the check it receives from continually increasing centrifugal force (253).

X. As expanded gas recedes from the sun, it increases the diameter of its orbit in the same decreasing ratio with which ponderable matter approaches the sun on its return or falling back.

XI. As expanded gas is forced up from the sun into greater orbits, the same amounts of space are filled with gas in the same times.

XII. From the time an atom of expanded gas leaves the sun, until it crystallizes again into solid matter, is the same time as from the time it crystallizes until it again falls into the sun.

XIII. Heat, light, electricity and energy are one and interchangeable; either can be changed into either of the others, and are but different manifestations of heat (218).

XIV. Light travels by impulse thru the gas of expanded matter by jarring or vibrating the atoms of gas, as new atoms are added at the sun. (See Nov. magazine, page 1).

XV. It requires 39,000 atoms of expanded gas of matter to make a ray one inch in length; therefore, there are 39,000 jars or vibrations in each inch the impulse of light travels (235).

XVI. Bodies of returning matter are continually falling into the sun, leaving black holes, and by their explosion into gas, sending fiery columns to great heights. These explosions sometimes jar or vibrate the whole sea of expanded gas between the sun and the earth, to the extent of moving magnets and needles (161).

XVII. The more matter that falls into the sun, the more heat is created and the more gas is expanded; therefore, the more rapid the jars or vibrations, which cause the impulse motion of light. The more rapid this motion is at the sun, the more rapid at the earth, and the more heat caused by the friction of more rapid vibration; thus the heat of the sun is transmuted by impulse to the earth's atmosphere with the speed of light.

XVIII. When a new planet has gathered in the nebulous region beyond Neptune, it is composed of loose material of finely crystallized matter, and as it revolves on its axis, gradually creates heat by the grinding motion, until about the orbit of the Asteroids, it melts into a molten mass, when it burns and radiates itself away to a second-class planet, and begins to form a crust (59).

XIX. After a planet has formed a crust, and as the crust thickens, it gradually becomes more dense and its mountain ranges increase in height, it evolves better and better forms of life, until it turns its magnetic pole to the sun.

XX. When a planet has entirely cooled and absorbed all its water and air and approaches the sun to where its heat is intense, it explodes, leaving a wide orbit of scattered fragments, which thereafter gradually fall into the sun (160).

XXI. Satellites, or moons, are bunches of dust which have gathered outside of the farthest new planet, and in attempting to join the new planet, fall behind it, and thus make their orbits around it in a retrograde direction, because they must come from outside the planets where the material is located. The orbits of these moons being contrary to the motion which they have within themselves from the sun, gradually turn their orbits over end for end, bringing their motion from right to left (213).

XXII. Moons obey the same law of shortening their orbits and increasing their speed, in approaching their planets, which the planets obey in approaching the sun.

XXIII. The procession of moons cannot be kept up, as in the case of planets, because all the material is being caught by the new planet (204).

XXIV. Comets are bunches of matter the same as new moons, which, being attracted by the sun, pass thru the orbit of the new planet without being caught as satellites, and continue towards the sun faster and faster, until their speed

is so great that they are drawn out into a long line, with their heaviest matter in front and illuminated by the friction against the gas of expanded matter.

XXV. All comets belong to the solar system, and no body formed from crystallized gas of matter expanded from the sun can ever be thrown away from the sun's attraction, until the sun itself reaches its own binary center.

XXVI. Parabola and hyperbola curves of comets are caused by centrifugal force. As they leave the sun, their speed and centrifugal force decrease, and they must then come back to the motion which gives them the curve at aphelion which they made at perihelion.

XXVII. That element of the tail of a comet which is simply heat, blaze, electrical or illumination, always leaves the nucleus, in the direction of and with the outgoing gas from the sun, and bends in the shape of a sword, with the gas revolving around the sun.

XXVIII. Rings are comets which, after being drawn out into a long line by passing around the sun, have been attracted to the large planet near which they were passing. As they shorten their orbits and become thus more compact, they are visible until they fall to the planet. Coming from inside of the planet's orbit, they fall behind it and make their orbit from right to left.

XXIV. Meteors, falling stars and aerolites are dust—pieces of asteroids and remnants of comets, which fall into the earth's atmosphere and burn by friction, unless large enough to reach the earth. This matter comprises the largest part of returning matter to the sun (176).

XXX. The zodiacal light is composed of crystallized dust—meteors, pieces of comets, asteroids and various small matter which cannot be seen as individual bodies, but only as a dim whole by reflection. As this miscellaneous matter approaches the sun, it travels on its various orbits, with increasing speed, obeying the same laws obeyed by planets, moons and comets; therefore nears the sun more slowly as centrifugal force increases, thus making it more compact nearest the sun.

XXXI. Asteroids are portions of bursted planets. Those between Mars and Jupiter are the remains of a great planet which bursted while in a molten condition.

XXXII. When a planet approaches the sun, or a moon

its planet, within a certain distance, depending upon their relative weights, its pole is attracted to its superior; and it is held in that position, showing but one face to its superior until it finally reaches its center or bursts by natural conditions.

XXXIII. The weight of all outgoing gas of expanded matter from the sun, if consolidated, is equal to the weight of all returning matter falling back to the sun, and the combined weight of both is equal to the weight of the sun.

XXXIV. Solid or contracted matter is always on its way falling back to the sun, and is stored heat, electricity, light or energy, and can be changed into either by proper combinations.

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### TAILS OF COMETS.

COMETS are perhaps the most wierd, facinating and mysterious of all heavenly bodies; and certainly are, to those who have only their eyes with which to investigate the wonders of space. There is nothing so startling as these sudden and (formly) unheralded visitors, unless it be the short moment of a total eclipse of the sun. Altho they are so light and gaseous as to have almost no influence of attraction at all, even upon the smallest visible asteroids, yet superstitious fears are always kindled amongst the ignorant and religious, upon the arrival of a new comet or the return of an old one. In olden days they were looked upon by the people as threatening the world with all kinds of dire calamity, and were always made a harvest time by the crafty priesthoods. The Romans had the beautiful belief that the great comet which followed the death of Julius Cæsar was a heavenly chariot sent to convey his spirit to the home of their gods. An old English writer says, "Cometes signifie corruptions of the ayge. They are signs of earthquakes, warres, changyng kyngdomes, great dearthe of corn, yea, a common death of man and beaste. Experiance is an eminent evidence, that a comete like a sword, protendeth warre; and a hairry comete, or a comete with a beard, denoteth the death of kyngs." No doubt he considered a comet with whiskers to be our dear heavenly father himself, out on a new pass over warpath. But it is this appendix of hair and beard of comets, now known as tails, which we wish to discuss in the light of science, and

more especially in the light of the new theory of a procession of planets, without mixing it with religious ignorance and superstition. You will remember it was shown in the first article last month how the gas of expanding matter leaves, or is forced by expansion up from the sun by the swiftly disintegrating matter into gas by heat at the sun, and how it leaves its surface with the motion of an orbit from right to left at the rate of 4,000 miles per hour, and also a motion outward or upward from the sun, depending upon the amount of gas or heat radiation of the sun. This outward force of expanding gas or heat radiation must be terrific at or near the sun, as it is measurable at the earth, but continually slower the farther it leaves the sun, as there would be more space to fill with gas, in each succeeding outward orbit. As has already been noted and explained in this magazine, this outward motion has been measured by Prof. Lebedow and others, but wrongly termed "the outward pressure of light," because they fail to understand its nature or real meaning. Now, let us analyze the motion which a light, gaseous body like a comet would receive from these two motions of outgoing gas. First, a comet is always traveling at enormous speed before it can show an illuminated trail, inasmuch as the illumination is caused by the friction of its increasing speed against this outgoing gas or radiation of expanding matter, which amounts to heat or electricity. The closer the comet approaches the sun, therefore, the greater must be the illumination, because the greater is the speed of both the comet and the outgoing gas which are thus meeting at increasing speeds, making its tail of heat light or electricity still longer. The most interesting feature of a comet's tail, however, is that it is always bent in the same direction that the gas revolves, and is a substantial witness to the fact that the outgoing gas, expanded at the sun, is actually making its various orbits at the rate of 4000 miles per hour around the sun from right to left, as the theory of a procession of planets shows that it should be doing. It makes no difference from what direction a comet falls towards the sun, whether its motion is retrograde or whether it passes around the sun from right to left, its tail is always on the side away from the sun, and bent in the shape of a sword, with the direction of the revolving gas of expanded matter. A comet sometimes makes its orbit at right angles to the elliptic or plane

of the sun's equator, but its tail never fails to indicate the direction in which this gas is revolving. When it passes thru the plain of the sun's equator on the south side of the sun the tail bends east, and when it passes the north side, the tail bends west. The tail of a comet, being little more than a flame or illumination, is at the entire mercy of this gas which is leaving the sun at such an enormous speed, in its vicinity, and is thus forced away from the sun, with this exception of its bent shape of the orbital motion, which the gas of expanding takes from the sun, as we have seen. What solid matter there is in a comet's tail continues in the orbit of the nucleus or head, but without illumination. The outward motion of gas is so much greater near the sun than the orbital motion that the bend of the tail is very slight, compared to what it would be if the outward motion were slow. Let us say, in order to illustrate, that the orbit where Vulcan should be is 40,000,000 miles in diameter and contains a surface of 1,600,000,000,000,000 square miles. The orbit of Mercury contains a surface of 5,184,000,000,000,000 square miles; therefore the expanding gas would fill the orbit of Vulcan about 3 1-5 times, while it filled the orbit of Mercury or traveled outward from the sun at Vulcan 3 1-5 times faster than at Mercury. The orbit of the earth contains 33,490,000,000,000,000 square miles; therefore the gas would travel about twenty times faster outward from the sun at Vulcan than at the earth; but very little faster, if any, on its orbit. We can easily understand how it would be possible, therefore, to be able to arrive at definite mathematical results, knowing, as we do, the outward speed and the orbital speed at the earth, the bend of a comet's tail and the difference in speed in 3,000,000 miles between perihelion and aphelion of the earth's orbit, together with a number of other facts which might be mentioned, or ascertained.

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## STORAGE OF WATER.

BY WILLIAM PLOTTS.

THE reclamation of the great desert regions of the west is one of the most fascinating themes to thousands of Americans, tho few believe that more than a small fraction of this vast area can ever be made productive. There are good reasons, however, to believe that if the

rainfall is properly conserved the whole of this region, with the exception of the lowest basins, which would become lakes, can be made productive to some extent, and a large part of it as productive as any land in the world. To bring about this transformation, it is necessary that little or no rainfall be allowed to reach the sea, and will necessitate the use of reservoirs for the storage of surplus floods. The picayunish, costly and inefficient reservoirs, advised in connection with the proposed government aid, are not, however, worthy of consideration. They would soon fill with silt, are costly to construct, an overhanging danger to the lives of all who live below, and comparatively few sites are suitable for construction at any reasonable cost.

Fortunately, natural reservoirs of immense capacity are already constructed. I refer to the deposits of sand and gravel, often hundreds of feet deep and miles in extent, the average porosity of which admits of about one-fourth of its bulk for water storage. The capacity of these deposits is ample, to retain any flood, and can retain it. You ask, "Why, then, do they not retain it?" Simply because they are already full: none of these reservoirs having yet been emptied, the flood soon fills them to overflowing and continues on to the sea; whereas, had the sand been dry, any ordinary flood would have disappeared in flowing over them. If you do not realize this, you can make a convincing experiment by turning the hose on a heap of river sand and observe how rapidly the water disappears.

A few years ago it was considered too expensive to pump water for irrigation, but today millions of gallons are raised out of the sands, at a cost of one to five cents per thousand gallons, and it is found profitable to raise water hundreds of feet vertically and convey it for miles to where it is required. Let me say here, that where ground is properly cultivated, as in fruit growing, there is very little water escapes except thru leaves into the atmosphere. This principle will hold good in all ordinary soils with good cultivation and care. The atmosphere being the reservoir in which the greater amount of water is stored, the more we add to it thru the agency of growing plants, the more will fall in the form of rain. It is supposed that the water which flows into the sea from the floods of the west, if instead were evaporated, would not appreciably add to the

density of the atmosphere, but would be carried out of the region by the prevailing winds, without much augmented precipitation. If we concede this, the fact remains that it would add some to the density, which would cause some additional rainfall in the defined area. Here, then, is the main point; the increased rainfall, be it ever so small at first, would be added to the great reservoirs in the atmosphere and sand, and returned to us in an ever increasing ratio. It must not be supposed that a great transformation in climate would be brought about in a short time, altho our school books of not long ago correctly included in maps of the "great American desert" the productive and storm ridden empire included Kansas, Nebraska, Oklahoma, etc.; but whenever the population increases and needs this region for its maintenance, i. e., when it will pay to raise the water out of our great porous reservoirs, which are already constructed and filled, to supply growing crops, the whole western arid region will gradually become fairly productive.

There is a popular clamor that the government should take charge of this work of reclamation, but all the government can profitably do is to arrange the apportionment and equalization of opportunity and rights of access of its citizens to the water, and that all belongs to legislative and judicial function. The government is too slow and too far behind the times to be anything but ridiculous in attempting to solve any mechanical problem in this rushing country. To those who, like the writer, fired steam boilers with fuel oil more than twenty years ago, successfully, the present greatly paraded and advertised government inspection of oil burning possibilities will not add much enthusiasm. We might as well understand that the government will not and cannot add to our wealth or knowledge, or adopt any device until long after it is proved practicable by individual enterprise. The government is managed by mortal individuals, most of whom could not command their salaries in competition with their fellow citizens; therefore, it is not wise to urge it to do what we can do cheaper and better ourselves.

The formation, extent and utility of the sand reservoirs are just beginning to be understood and appreciated. Formed of the heavier and coarser detritus, which the stream brings down from the mountains in flood times, and deposited as

it leaves its rapid channel, in a stream like the San Gabriel, the boulders and coarse gravel are deposited within a couple of miles of the canyon's mouth, while the balance is left in varying degrees of fineness thirty miles to the ocean, where the finest silt is carried, to build up more real estate. Subsequent smaller floods deposit their sand within the first few miles, leaving deposits of silt over the former coarse deposits, so that the lower portions of the plain are composed of alternate layers of coarse sand, clays and loam. The portion of the plain that is nearest the mouth of the canyon, however, contains no silt, and the water which enters it has access to all the subterranean porous strata thruout the plain, as it must be borne in mind that the whole plain has been built up in this way, and thus is an immense reservoir. When the foregoing facts are taken into consideration, it is easy to understand why wells will flow, in many localities, especially in the lower reaches of the valley and even under the ocean, in many localities.

Western America, like all other semi-arid countries, is noted for having an extremely capricious rainfall. Cycles of favorable seasons, followed by great aridity, without regularity, so that since the time when trustworthy records began there has been no opportunity for comparing the rainfall before and after irrigation was begun on any considerable scale, and it is not likely we will be able to make such comparisons for some years. Still, if our population continues its present increase, and forest and brush fires can be prevented, I predict that people now living will be able to record the beginning of the change of climate.

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### LIVING FOREVER.

**P**ROF. HARRY GAZE, a young man of considerable eloquence and pleasant address, has for about two years been advocating, by publications and lectures in this city, a doctrine, or system of continuing the life of the human body indefinitely, by proper condition or suggestions of the mind. Of course, he has been pooh-poohed and laughed at, as is usual in the case of any new or startling theory or discovery. The only reason he has not been stretched upon the rack or burned at the stake, by the church, is because the evolution of civilization has, fortunately for humanity, taken that power

out of their hands in the last few centuries, let us hope forever. Notwithstanding that the church people use ridicule—the only power left them to discourage this startling new idea—which would, if consummated, leave the priest and preacher without a job, there are a great many intelligent people listening with undivided attention to the wonderful teaching of this modest looking young man. The very fact, then, that people with the best shaped heads are interested enough to give even an occasional evening to the subject, demands our investigation and scientific analysis. Prof. Gaze does not go into the matter in a cold-blooded, scientific way, looking for the microscopic, physical or material reasons to account for his belief, but assumes more the position of a mental scientist or the power of mind over matter; even going so far as to spoil the beauty of his theory with reincarnation, in the case of accidents. He believes, however, the necessity of obeying nature's laws, and right living. In the January issue of this magazine you will remember an article, "Can Life be Renewed," page 10, in which I have set forth some of the conditions which are the cause of death and some of the possibilities of continuing life. (See Sept. No., p. 11). Since that time, however, some of the most important discoveries pertaining to life and death ever made have been made public. The cause which leads up to the action of death seems to me to be the gradual retaining of minerals and acids taken in food, and their crystallizing in the bones and tissues of the body. It is the function of the vital organs, pores of the skin, etc., to gather and eject everything which we swallow, taking the old dead and used up material and replacing it with new. The most of this building and carrying is done thru the medium of the blood, which circulates by the power of the muscular system. This, in turn, derives its power from the heat, generated from the friction of the disintegration or rotting of food which we take into our stomachs; but it then remains for the vital organs to eject all this dead matter and mineral from the system. It has been generally supposed that once in seven years we have thus an entirely new body, but by the aid of science we now find the period is much shorter, i. e., between one and two years, depending on the health. This, however, is again a mistake, because there is always a small residue of minerals and acid left, and crystallized in our bones and tissues, which our vital organs fail

to eject, and it is this gradual accumulation which brings on the disability of age and results in the final crystallization of the protoplasm which composes the nervous system, or the stopping of motion of this collidial substance, which is death. There is little doubt that if every organ of the body, including the millions of pores of the skin, whose duty it is to do this work of ejecting, did their work properly from the first breath of childhood, the body would not become old. (See Sept. Higher Science). There is also little doubt that if we could understand and obey the laws of nature exactly, the vital organs would have no trouble to do their part, and that the fault is in our ignorance, and partially indolence, in not studying and obeying the laws of nature. This being true, then it only remains for us to learn how to get rid of these crystallized minerals, or how to dissolve them and keep them from forming these crystals, so that they will be ejected. It may be possible that some method of the application of heat, by electricity light or energy, which are but manifestations of heat, would be the proper dissolvant. It may be that some liquid dissolvant would reach every part of the body better thru the medium of the blood, but its action would be electrical or heat by the friction of their dissolution. Heat is the only power which can expand matter, and therefore it must be some manifestation of heat or some liquid which will cause the heat of friction. Prof. Gaze, however, would evidently never allow this crystallization to accumulate, and therefore not require a dissolvant. Let us see. We know that the brain has its branches in every tissue and organ of the body. It reaches out and enters even the most minute atom of our being, and we know too that the brain has a wonderful control over the body. The control of mind over matter is becoming better established every year, until it is now confidently asserted by mental scientists and professors of suggestive therapeutics that by the proper use of suggestion from the mind or brain that the body can be restored to health; that any disease can be cured. Not only do they make this bold claim, but they apparently make most wonderful cures.

How, then, is this accomplished? By examining Prof. Loeb's experiments, we find that the motion of consciousness or life, the action of the brain thru the nervous system is a sensation, impulse or vibration running thru the collidial sub-

stances of protoplasm, by the ions jarring each other, the same as light travels by impulse thru the gas of expanded matter or as impulse travels thru the bullets in the gun barrel. (See Nov. H. S., 1901). This vibration, like any other, must cause heat and action, or energy, and thus force into healthy action and heat the remote atoms of every part of the body. Is it not possible, then, that with these bountiful suggestions of perfect health, running thru the body as vibrations from the brain, they may actually keep the vital organs in perfect health and keep the minerals and acids in a perfect state of dissolution? I want to say to my readers that I believe "all things are possible with nature" which are natural, provided, however, that we obey her laws. Life is natural, and death is unnatural. The first law of evolution is desire for better things. It is the desire and endeavor for bettering of conditions which causes the slow evolving of nature. If man ever does continue his life indefinitely, it will be because his great desire evolved the brains to make it possible, and there is no danger of any one without them, or of any animal, ever reaching that perfection, until the evolution of their brains makes it possible. According to the procession of planets, however, which proves itself to be true, our earth must eventually go into the sun. Even if we could escape that terrible judgment, by contriving to get back to Mars, when it has reach our present orbit, has a thick crust and plenty of sunlight, there is the next great gap to Jupiter, with a bursted planet between, which could hardly furnish resting places. Even tho we could continually move back to the next planets as they reach the orbit suitable for human life, there finally comes that day when the great sun itself, with its solar system, must reach the center around which it is revolving with its binary companions, when, traveling with the speed of light, they at last come together, "the heavens will roll up into a scroll and be melted with fervent heat," and yet the end of time will be no nearer than now.

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#### MASONRY AND RELIGION.

THE *Freemason*, of this city, for August, publishes a lecture by Richard Lambert, in which he says, amongst a jumble of other false teachings:

"We cannot but look with deep forebodings at the spirit of materialism that is drawing mankind farther away from

the plain teachings as handed down to us in that "Great Light" of Masonry, the Holy Bible, which is given as the "rule and guide of our faith."

If the Bible were really the great light of Masonry, then it would be as dark and ignorant as religion. But it is not, and we brand this whole lecture as false. In the great Republic of France, which nation is leading the world in science, Masonry does not require a candidate to believe there is a jealous, angry and repenting god, doing things which he happens by chance to think of. If he is a good, honest, intelligent man, as atheists and materialists usually are, it is impossible for him to believe in the science (?), obscenity, immoral teaching, general nastiness and murder taught in the Bible. America will soon follow France in this reformation in Masonry, when such religious cranks as lecturer Lambert can lecture to the church, and good men, who are too intelligent and honest to join the order now, can become Masons.

Another writer in the same magazine, page 316, writing on the subject of "Freemaosnry in France," after showing their lodges are centers of learning and are only attended by the best and most intelligent people, shows his own weakness and ignorance of the purposes of Masonry, as follows:

"It is well that we can claim superiority over the French Masons in the matter of religion, for we must acknowledge that they appear to be far in advance of us in the matter of intellectuality and the dignity of their Masonic labors."

After giving the names of a number of lodges which indicate the branch of science the particular lodge is studying, he finally ends his letter in the following fair and rational manner:

"All this is admirable, and proves to us that we have a great deal to learn from French Masons, and that upon the whole we have more need to imitate them than have they to imitate us. The average man has such religion as he can, but he is personally responsible for the cultivation of his own mind. What religion a man may have is, after all, not a practical question in Masonry, for even among us the question arises only once in a Mason's life. He gets no religious instruction after he becomes a Master Mason. On the other hand, mental discipline should go on all the time in Masonry, and in France it evidently does."

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## • Editorial •

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**We Will Give 25c** Each for every copy of the December, 1901, issue of this magazine, which you will send or bring to this office; or we will give a six-months' subscription, or advance your own subscription six months.

\* \* \*

**The Los Angeles** Liberal Club will hold its first meeting of the coming season at Brent's Hall, at No. 532 S. Spring street, Sunday evening, October 5th. The management will be by Lecturer Geo. T. Bruce, and it is hoped this season will be a great success in Liberal work and advancement. There will be good speaking, music and program, and no charge for admission. Miss Anna Alex will deliver an address.

\* \* \*

**Vol. I. Completed** With this issue we close our first year's work in HIGHER SCIENCE. The first year is always the hard year in the life of a new magazine, and we feel that it has been completed with credit. The Theory of a Procession of Planets is established amongst all thinking people who have given it consideration. This has been made possible in so short a time because scientists have realized for many years that the established theories lacked something and failed in many respects, and the new theory accounts for these things lacking, and so simply explains them that it could not be otherwise than true. If this editorial is marked with colored pencil, your subscription is due. Will you do HIGHER SCIENCE the great favor to respond?

\* \* \*

**When The Mt. Peele** Explosion occurred, magnetic needles and suspended magnets, more than a thousand miles away, recorded the jar or vibration. No doubt the jar or vibration may have traveled thru the crust of the earth, but it is possible that it recorded a second jar thru the atmosphere, which is a part of expanded matter. These magnets and needles are suspended to record sun-spots and expansions on the sun, which they do in the same way, by recording the jar which an explosion on the sun gives to the expanded matter which fills the solar system.

### Our Dear Heavenly

Father always selects his "chosen people" "with an eye singly fixed" on their ignorance. It may have occurred to our readers that for color, he usually chooses dark skin and curly hair, altho a regular old down-south cracker is just lazy enough to fall in with anything which requires no individual thot or provision for the morrow. White American women are getting out of this inability or indisposition to think and, and into the women's clubs faster than rats ever deserted a sinking grain ship.

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### We May Look At

The solar system and stellar universe; we may look at every phase, phenomenon and law of nature, and we find but two causes of motion—the expanding and contracting of matter. In whatever part of space we find matter collecting, we find it heating, and where we find it expanding and occupying larger space, it is cooling. It is the coming together which creates heat to expand it again, and it is the expanding and cooling which collects it to fall again. This is why matter can never remain motionless, and is the only cause of motion.

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### This Magazine

Is opposed to anything in the nature of begging of Freethinkers or Scientists and will not pursue any such course, but if our people would stand together as the church people do, and help and support each other in a legitimate business way, we could have good Liberal and scientific societies, a good illustrated magazine, each a good well supported business, good homes and be much more contented and happy than the ignorant who depend on god and faith, instead studying nature and obeying her laws. Please remember every advertiser represented in this magazine is liberal and deserves our support, when it costs us nothing extra.

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### Selfish And Religious

People are terribly shocked and their little minds ravished, if a neighbor happens to hoe the weeds out of his flower garden on the holy day (which falls on every day of the week, under the auspices of some religion), but they can read about their dear heavenly father knocking the brains out of 8,000,000 innocent little babies down in Egypt in one night and never feel a pang

of pain in their upper "rooms to let." Perhaps if it was the blood and brains of their own little boy on the door post, they might wake up and do a little thinking for themselves.

\* \* \*

**Three New Religions** Are all we have noticed in the past month, which attempt to give themselves a foundation upon the Theory of a Procession of Planets. This is a compliment which HIGHER SCIENCE acknowledges, with the complaint, however, that they have either not fully understood this simple new theory or have purposely garbled it. Heat and cold, or expanding and contracting, is all there is to the theory and we do not believe a religion with a god in it can be made out of such simple material, which will be mysterious enough to hold the ignorant in awe.

\* \* \*

**The Labor** Question—that is to say, the question of how to avoid labor, is a great question, which agitates most of us, a large part of all the time. There are a great many socialists amongst Liberals, and as this magazine represents the Liberals and Freethinkers of the coast, we have been asked many times to say more about this important matter. We have very little to say, but have given some of our ideas in an article for next issue, entitled "Socialism," which we hope will not give offense

\* \* \*

**Will You Reader,** Please send us the name of every old Heathen you happen to know, who is not blasphemous enough to believe that our heavenly father stopped the sun and moon in order to give his favorite agent, Joshua, more time to murder and massacre an innocent and inoffensive people, with all their mothers and little ones, saving alive only the maidens for the soldiers. We want to send them a sample copy of HIGHER SCIENCE, hoping to interest them in it. They are usually honest and also interested in science and think for themselves freely. If you are interested in science and free thought, you can help us extend the power of truth for good by sending us all such names and their last addresses.

\* \* \*

We wish to call your especial attention to the advertisement of the White Star Union Mining Company. This is not a wildcat oil scheme. Investigate it and get in at once.

### The Solar Energy

Its Source and Mode Thro' the Universe is an illustrated book of 350 pages, by I. W. Heysinger, M. A. It is a theory to explain the operation of the solar system. The author has the right conception of the motion of matter in many respects and realizes that if the sun is radiating his energy, he must also be supplied with fuel. This fuel, the doctor conceives to be returning currents of electricity. It is very ingenious in many respects. There is, however, the objection that no expanded matter could return to the sun while yet expanded. Electricity is but a manifestation of heat and a part of expanded matter and therefore could not return to the sun until contracted or stored in solid matter, giving it the specific gravity so that it could fall back thru expanded matter. He entirely overlooks a procession of planets and believes that all heavenly bodies occupy the same orbits forever, with the exception of comets, which finally disappear, leaving a stream of meteors, which thereafter occupy an orbit the same as other ponderable matter; forgetting that he would finally have a ring of meteors around the sun, thru which it would be impossible to see daylight.

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## • Comments •

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Any old thing will do for a god, if it is spelled with a capital.—*Torch of Reason*.

Ten years from now no preacher will dare speak of the big burning pit called hell as a reality.—*Thoughts of the Hour*.

The new comet "Brooks," just discovered, makes an orbit around the sun every 308 days, having the shortest time of any known comet.

The daily *Herald*, daily *Journal*, and other Los Angeles papers have given some nice criticisms of Painter Sturgis' painting, "Anadyomene."

Do your part; then indeed will you be able to say with us that modern Spiritualism is "as the shadow of a great rock in a weary land."—*Two Worlds*.

Well, it is, rather shady, to be sure.

If any man come to me, and hate not his father and mother, and wife and children, and brethren and sisters, yea, and his own life also, he cannot be my disciple.—*Jesus Christ*

A writer from Brocton, Ill., says in *Blue Grass Blade*, "The Illinois people read the *Blue Grass Blade*, *Freethought Magazine*, HIGHER SCIENCE, Thomas Paine and Col. Ingersoll."

So there are no fixed or motionless suns in space. Indeed, there could not be bodies at rest in a free space dominated by the ruler of all—Gravity.—*Prof. Edgar L. Larkin in Examiner.*

Processional Theory. The Procession of Planets, by Franklin H. Heald; Los Angeles, Cal., 1901. This hypothesis shows Mercury to be the oldest planet and Neptune the youngest, so far as known.—*Notes and Queries, Magazine.*

A man who is loved by a beautiful woman is successful.—*Downey Dispatch.*

A beautiful woman is often one with a head full of brains and a face covered with freckles.

Octinal Notation, by Capt. Geo. H. Cooper, is a 25c book devoted to a new method of notation which is very ingenious and which if adopted would render unnecessary any change in the unit if this country, as proposed by those who agitate the forcible introduction of the French metric system.

The physical earth quakes primarily because the holy spirit produced by the combustion of the lord's body was transformed, in one degree of its metamorphosis, to physical spirit.—*Flaming Sword.*

The above is "the farthest fetched" explanation of the Mt. Pelée disaster that we have yet seen.

It is said that knowledge is power. If so, it follows that possession of the knowledge of god means the possession of the power of God.—*Religious Ex.*

If the power is only equivalent to the "knowledge" referred to, it is hardly worth talking about. He did not know the world was round after he had made it.

Plano, Cal., 8-20-'02.

• ED. HIGHER SCIENCE—Dear Sir: I have received your magazine for several months, and must say that I like it very much, and especially your theory of Astronomy. Your re-

ligious criticisms I think correct, but severe. I think every belief and religion is a link in the march of evolution. Of course, superstition and errors should be exposed, but we know the church had a great many martyrs that were willing to die for their belief. \* \* \* \* \*

I am yours truly,

P. TING.

Our friend is no doubt right, but it is time now for them to waken up to the truth of science and free thinking.

It has been found necessary by the Union Pacific railroad to prohibit smoking, because cigarette users in its employ become "dopy" and worthless. Director Harriman said recently that the company might just as well go to the county lunatic asylums for its employees as to retain cigarette smokers in its employ at big salaries.—*Independent*.

There are many people who abstain from marriage for religious reasons. The true celibate possesses the highest moral integrity, and it is not permissible to class this kind of celibacy with that which obtains among a large percentage of criminals.—*Pious Ex.*

It is permissible in these latter days, however, to tell the truth about the religious celibate reprobates, and the truth is, they commit more crime against society than any other class of criminals. They live by the charity of women, are chicken fed, lazy, amorous, without principle and are so thoroughly protected by the superstition, dense ignorance and credulity of their dupes, that only a small percentage of their crimes are ever known. (Read "Crimes of Preachers;" price 25c.)

Extracts from a letter from ex-Monk Henry A. Sullivan of Chicago, author of "Convent Cruelties":

"\* \* \* The world will have to accept your theory and I must say I am completely wrapped up in it myself. The Roman church would not accept the Copernican theory which Galileo taught, that the earth revolves on its axis and around the sun, and forced him at the stake to recant, but the earth "do move," and revolves on its axis, and is going around the sun in spite of them. No matter what the church or old theories do or say, the solar system and all matter and nature is working away according to your beautiful theory in all its simplicity. \* \* \* \* \*"

*The Seventh Trumpet* is the organ of a new religion, which hopes to soon bring the earth and most of its inhabitants to eternal destruction and punishment. A correspondent in July number pertinently asks, "Are not the sciences, when understood, beneficial, and a great help in elevating man above the plane of barbarism, sensuality and ignorance?" To which the disabled editor answers, "All branches of science in its general course is combined with carnal mindedness, which makes the people two-fold more children of hell, etc., etc." Evidently the editor does not quite understand the sciences.

**HIGHER SCIENCE.** A monthly magazine, which advocates a new theory concerning the motion of matter, and a new idea of cosmogony called the procession of the planets. A departure is made from the nebular hypothesis, though we cannot say that it is any improvement. Of course, the Copernican idea prevails throughout the system, the premise being the earth's convexity. The procession theory is wholly materialistic; even the substance of light is held to be atomic. The idea is somewhat analogous to the old corpuscular theory of light. \$1.00 per year. 215 Stimson Block, Los Angeles, Cal.—*Flaming Sword*.

The religion called Kabbalah announces the following indefinite information in regard to its god:

"An exact definition of Deity is impossible because it is altogether beyond finite conception. We can only say that existence exists by itself, and because it exists; therefore it is the "Absolute" of reasoning. Like all other esoteric philosophies the Kabbalah has no name for Deity, but substitutes the ineffable four-lettered Tetragramation usually translated god or lord, but which is never pronounced aloud by the initiated Kabbalist."

We heartily agree that a god is altogether beyond any conception and we can hardly blame them for refusing to pronounce such a ridiculous and mysterious name aloud, any more than we blame them for their inability to reason. In attempting to establish itself on the theory of a Procession of Planets, without exactly understanding the beautiful and simple theory, it says: "Kabbalah predicts many universes, and many worlds which have been brought into existence and have again disappeared, and that this is the law of existence itself, and may be called the law of periodicity which is found to mani-

fest itself everywhere in nature, and which mark the many cycles of time: that the law governs in all planes of life; in the birth and decay of planets, and solar systems, of man and animas, and nothing in the universe is exempt from this law. The law of periodicity implies a beginning and an end, and the law of manifestation implies directing intelligences, and forces at work carrying out the plans which the directing intelligences have conceived. Again the directing intelligences must have an object to be accomplished or some purpose in view in the formation of every universe. The directing intelligences and forces are the Sephiroth, of which there are ten. The most important of these is the first Sephira to whom the name of Kether is given. The importance of this Sephira will become more evident as we unfold the philosophy of the Kabbalah. This first Sephira also bears many other names, each name expressing a different idea or aspect. Its highest Divine Name is that given in Exodus III.4: Eheieh, I am, etc., etc."

„It looks as if they may have a whole flock of gods before they get settled down to a solid basis, but on the whole we congratulate this Kabbalabosh on its endeavor to start out on a higher plane. There are plenty of people with a smattering of science, not yet far enough advanced to accept the straight truth of maetrialism, who will support it. By thus breaking away from old notions, they will be free to do a little free thinking for themselves and by and by get around to the simple truth of nature.

#### TO ADVERTISERS.

This magazine represents the interests and religion of the Los Angeles Liberal Club and Freethinkers of Southern California. Its savior is studying and obeying the laws and science of nature and its god is the motion of matter by the expansion of heat and its contraction by lack of heat. It is one year old, but its subscription list promises to reach 5000 during the next year. Our organized Freethinkers propose to support its advertisers in order to make it permanent and better, in which case it will be able to use illustrations and diagrams each month in its scientific teaching. We can convince any honest advertiser that we can bring him trade.



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