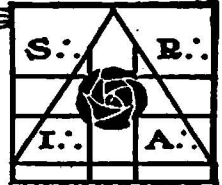


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No. 18

Authorized Instruction in Rosicrucian Philosophy.

By Fr. K. X^o.

Number Six.

The Nebular Hypothesis

The Correlation of Occult Teachings with Findings of Academic Science

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POSITIVE IONS

- 1 They are positive electrical conductors, not negative.
- 2 The velocity of the positive ion is less than that of a corpuscle.
- 3 Its electrical charge is identical with that of the ordinary atom.

As to Order.

- 4 Its value of $\frac{e}{m}$ is $\frac{1}{30,000}$ of $\frac{e}{m}$ for a corpuscle. e =electrical charge. m =Mass.
 - 5 Its mass is 1000 times greater than that of a corpuscle and is practically equal to that of an ordinary atom.
 - 6 It can be deflected magnetically, only slightly.
 - 7 From the previous paragraphs it may be seen that as the corpuscle is the connecting link between Ether (of the Spiritual realms) and embryonic Matter (in the Physical worlds) it is the touchstone in the physical search for the "Philosopher Stone".
- It will also be seen that the positive ion has qualities not altogether explained by the corpuscle, and this quality we shall try to arrive at shortly.

LIGHT RAYS

Next come the light rays. The new advances in radio activity have done much to confirm the early teachings of mediaeval Rosicrucians. The "eternal light" is found veritably manifest in the light and fluorescence of radio activity. First of all we will define radio activity itself.

RADIO ACTIVITY DEFINED

Radio activity is the explosion of an aggregation of corpuscles comprising untalbe, heavy atoms. With the decrease of their kinetic energy, they explode, and the corpuscles rearrange themselves, evolving energy and projecting the products of the rearrangement.

RADIO ACTIVE SUBSTANCE

"A radio active substance is one whose atom consists of a complex group of corpuscles, the configuration of which depends for its maintenance upon a certain velocity of movement of the corpuscles comprising it, and beneath which velocity the corpuscles rearrange themselves with the evolution of an amount of energy which breaks down the atom".

GENEALOGY OF RADIO ACTIVE LIGHT WAVES

Aside from our knowledge of the light waves and rays as exhibited in the spectrum, from red to violet, we have now through the phenomena of radio activity the following rays in their genealogical order,—

Cathode rays
 Lenard Rays, | X Rays
 | |
 S Rays | N Rays | Becquerel Rays.

TRANSMUTATION PRODUCTS

Alpha, Beta and Gamma Rays: These three rays from radium are apparently IDENTICAL WITH THE POSITIVE IONS, CORPUSCLES AND X RAYS. This is of great importance for this identity is what makes known the transmutative processes of modern science. For from the radium and other radio-active elements are produced NEW or TRANSMUTED ELEMENTS, known to science as

URANIUM X
 THORIUM X
 THORIUM EMANATION
 RADIUM EMANATION
 RADIUM EMANATION X, 1st, 2nd, 3rd, and 4th changes

to the final product, and occupying respectively, 22 days, 4 days, 1 minute, 3.7 days, 3 minutes, 21 minutes, 28 minutes, 200 years.

POWER AND VALUE OF RADIUM

The radio active power of radium itself is 1,300,000 times that of barium with which it is commonly associated and one gram would be worth at least \$10,000 if it were possible to

Sayings of Elbert Hubbard, No. 14.

"Nature's methods are Evolutionary, not REVOLUTIONARY."

secure it, but it is not probable that at the present time one whole gram has been extracted, and it is obtainable only in milligrams.

TRANSMUTATION A FACT

It is not possible in a limited instruction to go into the actual physical processes employed, but they may be accepted as truth on the status of the eminent men of scientific authority who are sponsors for them. With this in mind let us state that the teaching of the Rosicrucians for centuries that transmutation of elements is possible is borne out by the fact that **IT HAS BEEN AND IS BEING DONE NOW, IN THE MODERN LABORATORY.** We have three distinct instances:

THE TRANSMUTED ELEMENTS

- 1 The evolution of Uranium X, an entirely NEW Element, out of the decomposition of Uranium. (Rutherford)
- 2 The evolution of "Exradio" from Radium. (Ramsay)
- 3 The birth of Helium from Radium emanation. (Ramsay-Soddy).

TRANSMUTATION TRADITIONS

Lower elements such as Lead and Silver have been transmitted by exoteric science, and it is a tradition of the Fraternity which seems well attested that Gold has also been raised from lower metals, but the above instances are the actual verifiable results of modern savants, far removed from the allegory, tradition, romance, and fiction of mediaevalism.

ATOM COMPARED TO A CHURCH

To give an idea of the relative values of sizes, in dealing with infinitesimals, we quote the illustration of Lodge,—“If we imagine an ordinary church to be an atom of hydrogen, the corpuscles constituting it would be represented by 100 grains of sand each the size of a period, dashing in all directions inside; rotating with inconceivable velocities, and filling the whole interior of the church with their tumultuous motion.” “Such an atom would be penetrable to other corpuscles in inverse proportion to the number of corpuscles constituting it, while it would be opaque to other atoms.

TRANSMUTATION OF NEON AND HELIUM

The latest transmutation is the production of NEON, a gas, and also Helium from bulbs which had contained only Hydrogen. This on the statements of Ramsay and Collie. And note that both Neon and Helium are of higher atomic weight than the Hydrogen from which they appeared.

NUMBER AND WEIGHT OF ATOMS

This has enabled scientists to compute accurately the number of atoms in a given quantity of matter. For instance a grain of radium gives off \$6 billion helium atoms PER SECOND. A cubic centimeter of helium GAS contains 2,560,000,000,000,000,000,000, atoms, while the weight of an atom is (1/68) 000,000,000,000,000,000,000,000 (octillionths) of a gram. The smallest particle of matter that can be seen with the most powerful microscope contains more atoms than the total number of the human population on the globe since humanity has existed.

“ELECTRICITY IS LIFE”

There is an old saying, “Electricity is Life.” Rosicrucians agree with it thoroughly but go farther. They assert that all that we can know or conceive of is a manifestation of electrical energy, and the statements made in this instruction based upon the findings of authoritative science indicate the activities of both positive and negative electricities in all cosmic operations, and it may not be too much to predicate that the “wisdom of future generations” may find that the “Word that was lost”, the creative word, is synonymous with electrical activity as a Deific manifestation.

MATTER AND ELECTRICITY IDENTICAL

NOW SCIENCE ASSERTS TOO, THAT MATTER IS MADE UP OF ELECTRICITY, AND NOTHING BUT ELECTRICITY.

We now know vastly more about electricity than formerly, and instead of it being a hypothetical condition we know WHAT it is in one phase at least. Rosicrucians assert the other phase. What we KNOW about one phase of electricity (the negative) we gain through the Eletric Theory. We will sum it up;

- 1 Negative electricity consists of unit corpuscles or electrons.
- 2 Static electricity results from the action of these corpuscles at rest.
- 3 Current electricity is these corpuscles in motion, whether through gases, liquids, or solids.
- 4 Magnetism is a phase of energy developed in the ether at right angles to the direction of motion of the corpuscles.
- 5 Light is due to disturbances in the surrounding ether caused by changes in the motion of the corpuscles.
- 6 Self-induced electricity and mechanical inertia of matter are identical and due to the corpuscle in motion.
- 7 Mass, or matter in quantity is ether carried along by the moving corpuscle; it is not a constant quantity but depends upon the velocity of the moving corpuscle.
- 8 Atoms are made up of negative charges or corpuscles, each aggregation of corpuscles being surrounded by A SPHERE OF POSITIVE ELECTRICITY. (What IS positive electricity?)
- 9 THEREFORE, MATTER ULTIMATELY IS IDENTICAL WITH ELECTRICITY.

POSITIVE ELECTRICITY THE ROSICRUCIAN X FORCE

To correlate the spiritual and the physical, the ethical and the material, Rosicrucians teach that POSITIVE ELECTRICITY IS THE “X FORCE,” MENTAL POWER AND INTELLIGENCE OF THE ABSOLUTE, which is manifested as the Word and Wisdom of his two Expressions and transmitted via the Radiant Energy and Ether into Creative Process.

The status of the activities of these infinitesimals we have considered, defines the status of the planetary bodies of our own and all other solar systems. Metals are not by any means in the same state on all. On the hottest solar bodies we find them in the “proto” state, such as Proto-hydrogen (Pickering of Harvard) in Zeta-Puppis and Argo, and in 29 Canis Major and Gamma-Argus. The element proto-hydrogen is the broken-down element Hydrogen.

PLANETARY HEAT AND RADIO-ACTIVITY

In the case of our own sun, the comparative youth of our solar system is shown by the fact that our sun cannot have been emitting heat at its present rate for more than 18,000,000 years. (YOUNG) nor has it illumined this earth for more than 100,000,000 years, even though our earth was thrown off from the sun in the Hyperborean Epoch approximately 350,000,000 years ago, for the sun did not gain its full power to illuminate until a comparatively recent date, due to the contraction, consequent liberation of heat, and increasing incandescence. For the heat of all the planets comes from within each, not from the parent sun, and is due to the heat generated by contraction and the radio-activity. Both the sun and our earth contain enormous quantities of radio active matter and radio activity generates a tremendous amount of heat. It is estimated therefore that the radio activity of ordinary substances on both earth and sun will be sufficient to more than offset the amount of heat generated and dissipated into space.

POWER OF LIGHT PRESSURE SIZE OF A PARTICLE OF NEBULIC MIST

The further power of light is shown by the value of Light Pressure which is one milligram per square meter of earth's surface, or 70,000 tons for the whole planet, from the sun. This pressure and force exerted on atomic structures causes the continuous changes in the general structural make-up of the earth. The phenomenon of light pressure is illustrated by the force exerted on comets, which when pointing toward the sun have their tails away from it, due to the light pressure bombardment. In this connection the particles of mist which form the comet's tail are analogous to those which form the nebular mist and are measured as about 1 to 6 thousandths of a millimeter in diameter.

SYNTHESIS OF ATOMS
Transmutation is no longer the generally scouted dream of the Rosicrucian alchemist. It is a FACT of 20th Century Science. Sir William Ramsay said, "Experiments are in progress with radio-active substances, the results of which seem to show that we are on the brink of DISCOVERING THE SYNTHESIS OF ATOMS."

WHAT PHYSICAL SCIENTISTS SEEK
Physical Scientists seek to tap the store of inter-elemental energy, "a store so great that every breath we draw has within it sufficient power to drive all the workshops of the world".

WHAT ROSICRUCIAN INITIATES SEEK
Rosicrucian Initiates, knowing the secret of Positive Electricity, seek to tap the storehouse of Cosmic Conscious Energy, by which life may be prolonged indefinitely, not in a mere mortal shell, but in conscious sequential memory through all succeeding incarnations.

STUPENDOUS MATHEMATICAL EVIDENCES CAUSE REVERENCE AND HUMILITY
This stupendous range of mathematical evidences of the scale on which Nature and Cosmic forces operate, from the inconceivable dynamic energy displayed in the radio-active bombardments on a microcosmic scale, to the macrocosmic neighborliness of our nearest star Alpha Centauri 26,000,000,000 miles distant, with the next nearest twice as far, and the generality at least forty or fifty times as distant, should make us pause in our vaunted conceits of earthly wisdom and bend in humble reverence before works so vast as to evidence beyond all mortal question the manifest intelligence of the Supreme Architect of the Universe, and His assisting Hierarchies.

The Via Lactea.

The following re the Via Lactea and Comets should have appeared in Mercury, No. 17, after the paragraph entitled "The Shape of our Universe."

The Milky Way or Via Lactea mentioned above, may be described as the luminous belt surrounding the heavens in a great circle. It varies both in width and brightness, and for a third of its extent, that is, from Cygnus to Scorpio, it appears divided into two parallel streams. The Via Lactea is more commonly known as the "Galaxy," and is made up almost wholly of stars of the eighth magnitude and less. It contains many true star-clusters, but few real nebulae, and in some places the stars are too thickly clustered to permit of accurate record or estimate.

In early times the Milky Way as the origin of much really important mythos and deific personification; in mediaeval times it was the subject of a vast deal of superstition; in modern times it is the subject of critical investigation. In its entirety, it exercises an undoubted influence of an occult nature, not only upon our planet, but on all others within a reasonable radius, but its influence is that of a benefic, and by the ancients it was supposed that the Milky Way exerted a pull that counteracted the force that held all bodies to the earth's surface. The ancients believed that but for this benefic influence, we should be inevitably drawn or "sucked into" the earth crust. Needless to say, this idea is not entertained as other than mythos. The influence exerted for our benefit, is manifested through the combined forces of the enormous number of its starry members, concentrated upon the material forms utilized by organic life upon our planet, and preventing too great consolidation or crystallization and operative principally through our Etheric and Astral vehicles.

COMETS.

Many uninformed persons mistake comets for nebulae and regard the two as identical. This of course is wrong, and some erroneously believe that comets exercise a baneful influence upon the earth, some occultists even going so far as to teach that planetary continental modifications are actually produced by them. Nothing could be farther from the truth. Over 650 comets are now recorded and classified as Parabolic, Elliptical and Hyperbolic; comets of Long and Short Duration. Comets move for the most part however, in parabolas, and their orbits have no evident relation to the plane of planetary motions. This fact indicates that they need not be considered as belonging in any true sense to the Solar System itself, but are merely visitors therein from interstellar spatial regions.

THEIR PARTS.

A comet consists of the coma, or shining matter, the nucleus, a bright point near the center of the coma, and the tail or streamer. This tail is not discarded matter, as is shown by the fact that while it follows the coma as the comet approaches the sun, it precedes the coma as the latter recedes from the sun. The tail is always away from the sun.

SIZE.

The size of a comet is almost incredible, in general the head or coma being from 40,000 to 100,000 miles in diameter; the comet of 1811 having a head 1,200,000 miles in diameter. The tail of the great comet of 1882 was 100,000,000 miles in length. The head contracts as the comet approaches the sun.

MASS AND DENSITY

Yet a comet's mass is insignificant, and its density inconceivably small, "much below the density of the residual gas left in the best vacuum science can produce." Comets are not self luminous, but shine by reflected light, as is proven by their relative luminosity as they approach or recede from the sun.

NO EVIL EFFECT UPON THE EARTH.

Instead of exerting a destructive effect upon our Earth, when the planet passed through a comet some years ago, the only noticeable effect was a general luminescence or almost phosphorescent effect, dimly perceived. On the other hand, when a comet comes into contact with another planet or enters that planet's orbit, it is apt to be either broken up, or "made captive" as often happens with the ponderous planet Jupiter sometimes called the "thief of the skies." A comet has been caught by the attractive power of this mighty body, made captive and compelled to move an orbital prisoner.

METEORITES.

The same fear expressed relative to comets, has also been manifested in regard to meteorites: broken bits of other worlds and disintegrated worlds. Over twenty million of these meteorites enter our atmosphere every twenty-four hours, yet of all this great number only about 700 have actually reached the earth's surface, the remainder being dissipated or consumed in our atmosphere by friction created through their own inconceivable speed. The ocean floor is said to be covered with a thin layer of the ash.

College Notes.

Summons.

In accordance with the provisions of your Obligation, YOU ARE HEREBY SUMMONED to attend the next regular Convocation for the purpose of electing Officers for the ensuing year.
Attest, Industria, 9°-2°, Reficio, IX°.
Secretary. *Wor. Adept.*

Immediately after the Election of Officers and Closing, the Fourth Quarterly Business Meeting of Metropolitan College for 1919, will be held.

At the last Convocation the following ten candidates received the Neophyte's Degree; Sorors Invicta, (E.E.W.), Renuncia, (B.F.D.), Directa, (A.G.H.), and Fraters Bassus, (D.H.), Flaccus, (E.W.), Tertullian, (A.F.S.), Balbus, (J.V.), Erseny, (S.E.F.), Euis, (J.H.T.).

EACH NEW MEMBER is advised that it is a duty to furnish a personal photograph for filing with the membership records. Please do not delay.

Are notified that photographs of each new applicant for membership must be filed with the application blank.

Those who intend to have their copies of Mercury, Volume Four, 1919, bound up in the usual form, are advised to get their copies together and have them ready for the Binder as soon as No. 20 is issued, as they will get a more advantageous price when many sets are bound up at one time.

ARE YOU one of the members who agreed to subscribe one book per month for one year, to the College Library? Please refresh your memory and see if you have fulfilled your voluntary obligation. Our library is fast becoming a most useful factor in our College work.

The cordial thanks of the College are extended to Fr. Galle, 0°-0°, for the presentation to the Library of a monograph on the Rosetta Stone, published by the British Museum.

A cordial welcome to Metropolitan College is extended to each of the new members who received the Neophyte's Degree at the last Convocation. We hope that each one will make it a point to attend the Convocations regularly and derive all possible benefit from their membership.

ALL MEMBERS OF METROPOLITAN PLEASE TAKE NOTICE; that hereafter, the degrees of the grades will be conferred, NOT ON THE BASIS OF TENURE OF MEMBERSHIP, BUT ON THE BASIS OF PERCENTAGE OF ATTENDANCE AT THE CLASSES TO WHICH EACH MEMBER IS ASSIGNED. A strict record of attendance will be maintained (as it has been in the past) and no member will be advanced to any degree unless his or her attendance at class has averaged over 50% for the given term.

At the last Convocation, the following were appointed as a NOMINATING COMMITTEE to report at the forthcoming Convocation; Sorors Activitas and Egregia and Fraters Paracelsus and Novius.

Special Notice.

At the request of our Financial Secretary, Fr. Lactantius, the following notice is published:
"Members will please not pay money for dues, etc., to the Financial Secretary or any other member without obtaining a receipt therefor. Hereafter, in the event of disagreement sums claimed to have been paid will not be credited unless receipt is exhibited."

Fraternally yours,

Lactantius, 1°-10°, Financial Secretary.

Masonic Notices.

The Twentieth and Twenty-first Regular Voyages of Metropolitan Lodge, No. 1, Ark Mariner Masons, were held at the Masonic Hall, 24th Street, in October. The membership list was carefully revised and will in future be maintained on a more rigidly exclusive plan, welcoming only those who are willing to work, and maintain an active interest in the distinctive purposes for which the Lodge was Chartered. Chronic absentees were dropped from the membership list after notification to each to reply to a special communication sent out for the purpose of ascertaining the attitude of each member. In future, the Regular Voyages will include a banquet, and the presentation of a specially prepared paper by Brothers of the Lodge in sequence. Occasionally the Ark Degree will be exemplified. Metropolitan Lodge is open to Masons of Metropolitan College who can subscribe to the necessary qualifications and who WILL LIVE UP TO THEIR OBLIGATIONS.

Directory.

The One Hundred and Eleventh Stated Convocation of Metropolitan College
S.:R.:I.:A.: will be held in the Adytum, 310 Lenox Avenue
Between 125th. and 126th. Streets, opposite 125th. Street station, Lenox Ave. Subway.

Friday Evening, November 28, 1919, at 8.00 P. M. precisely

Work:

ANNUAL ELECTION OF OFFICERS and the REGULAR CLASSES.

Neophytes' Class Instructor V. Wor. Fr. Reficio IX°

Elementary Rosicrucian Philosophy, No. 6,

Subject: "The Nebular Hypothesis."

This Class will also meet at 8 P.M., on Wednesday, Dec. 3, in Room 1517 Masonic Temple, 24th St.
Take Elevators from 24th St. Entrance.

Elementary Hermetic Class..... Instructor, R. Wor. Fr. Paracelsus IX°

Elementary Hermetic Instruction, No. 11,

Subject: "The Hermetic Principle of Causation."

This Class will also meet at 8 P.M., on Friday, Dec. 5, in Room 1517 Masonic Temple, 24th St.
See Instructions above.

Senior Hermetic Class. Instructor, Fr. K.

Senior Hermetic Instruction, No. 7,

Subject: "Healing, Inspiration and Liberation."

Autobiographical Class.

Sr. Progressia 9°-2°.

2nd and 4th Tuesdays. 712 West 180th Street.

CLASS CONVENES AT 8:00 P. M. PRECISELY, PLEASE BE PROMPT.

Masonic Notices.

THE TWENTY-THIRD REGULAR VOYAGE AND DINNER OF METROPOLITAN LODGE, NO. 1, ARK MARINER MASONS, was held Saturday evening, November 22, at the Au Coq Gaulois, 32 West 57th Street, Manhattan. A most interesting paper was presented and read by W.:.Bro. Bevier.