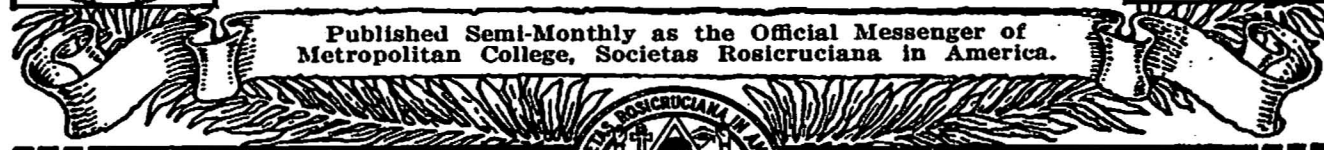


MERCURY



Published Semi-Monthly as the Official Messenger of
Metropolitan College, Societas Rosicruciana in America.



Vol. 4

November 10,

MCMXIX.

No. 17

Authorized Instruction in Rosicrucian Philosophy.

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Number Six.

The Nebular Hypothesis

The Correlation of Occult Teachings with Findings of Academic Science

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RECAPITULATION

First, let us recapitulate; Our earth, for instance, never was either a gaseous ring or a liquid globe as liquids are ordinarily understood by laymen.

HOW A STAR IS "COLD" AT FIRST

Second, on the previous page we stated that a star born out of the cosmic mist of a nebula was "cold at first". This apparent paradox is easily explained when we understand that after being thrown off from the parent nucleus, for a time its substance is widely distributed and semi-diffused throughout a part of the nebular mass, and therefore cools, in its atomic structure, until assuming the attributes of its ultimate shape it begins to generate heat itself by the process of contraction.

Therefore we may state at this point the following affirmation:

AUTHORITATIVE ACADEMIC AND ROSICRUCIAN SCIENCE TEACHES THAT THE TRUE NEBULAR HYPOTHESIS OR EXEGESIS IS—

1st. That the central nucleus of the Nebula is the future sun of a new solar system. Rosicrucianism amplifies this affirmation by stating this nucleus to be the central focal point of the activities of the creating God who may be operating through the nebula under observation.

PLANETESIMALS

2nd. That the bodies thrown off from the central nucleus, namely, the smaller nuclei of varying densities and proportions, are the planetesimals, or future planets of the solar-system-in-the-making.

NOT RINGS BUT BUILT UP

3rd. That these planetesimals are not rings but are thrown off in mass from the central nucleus, and that each planetesimal or lesser nucleus builds up by attraction and meteoric bombardment.

HOW AXIAL MOTION AND SPHERICAL SHAPE ARE OBTAINED

4th. That the individual nucleus or planetesimal derives its initial axial motion from the frictional contact with the nebular structure, which is in constant interior motion, producing also the spherical shape.

ORIGIN OF ORBITAL MOTION

5th. That each individual nucleus or planetesimal derives its orbital motion from the spiral sweep of the entire nebular mass, and that as the entire nebula moves as a unit carrying all its planetesimals within it, so after ultimate clearing of the nebular structure, the resultant solar system continues to move in a general orbital sweep, carrying its planetary family as a unit.

ORIGIN OF NEBULAE

6th. That the nebula has its origin in "Cosmic Dust", Rosicrucian Cosmic Root Substance, the product, not of the collision of worlds or planets, but of the electrified particles of world-stuff from other suns, (which are the physical vehicles of the creating God of those particular systems) which collide in the space indicated by the new-creating God, forming the meteoric masses which later aggregate into " " of gravitation.

DIRECTION OF OUR SOLAR SYSTEM

Our entire solar system moves forward in space at the rate of 12½ miles per second, in the direction of 15 degrees southwest of Vega, in the constellation Lyra. Vega is also approaching us at a rate that brings the two systems nearer by 2,000,000 miles each 24 hours.

Sayings of Elbert Hubbard, No. 13.

"The man who consumes and wastes and does not produce, is a burden, like the grasshopper."

GOD IS LIGHT, LIFE AND LOVE

Rosicrucian teachings affirm that the triune Deity is Light, Life and Love, and it is a fact that wherever the last two are found, the first will always be present, exoterically and esoterically. Sometimes chemical methods must be employed to demonstrate its presence exoterically, nevertheless it will always be found.

LIGHT, GREATEST COSMIC FORCE

Therefore, LIGHT may truly be said to be the greatest of Cosmic forces, manifesting the Will of the Absolute.

RADIATION PRESSURE

"Radiation Pressure" means the pressure and activity of light. It is the direct force that preserves the integrity of the nebula that is destined to be a future solar system; preventing, by overcoming for the time being the force of gravitation, the fine particles of nebular matter from gravitating toward other interspatial bodies.

Reduced to a practical affirmation, then, Rosicrucian teachings agree with Professor Campbell who puts it thus:—

NEBULAE AND LIGHT

"A NEBULA CONSISTS WHOLLY OR IN PART OF FINELY DIVIDED PARTICLES OF MATTER WHICH ARE THRUST HITHER AND YON BY THE LIGHT PRESSURE OF MYRIADS OF INCANDESCENT STARS, IN SEEMING DEFIANCE OF THE LAWS OF GRAVITATION. IN DUE COURSE, HOWEVER, THE FINE PARTICLES OF MATTER BECOME AGGREGATED, AND THUS BECOME TOO LARGE FOR THE LIGHT WAVES TO ACT ON THEM EFFECTIVELY."

SUCCESSORS TO GRAVITATION

This aggregated matter then becomes so concentrated as to form the more or less solid body that we call a star. "Thenceforth, this body, undergoing a series of transformations which cause it to be definitely labelled must move in response to the aggregate pull gravitationally, of the stellar bodies that make up the universe.

SHAPE OF OUR UNIVERSE

So far as can be observed, the "bulk of the stars, exclusive of those of the Milky Way, form a vast lens-shaped structure, "and as we attempt to picture in the imagination this vast lenticular structure, comprising in the aggregate all the matter in the universe, the thought comes naturally to mind that the entire system, with its hundred million or thousand million stars, may be whirling about the axis of the galactic poles, with some giant sun, so distant that it seems to us no different from other stars—at its center of revolution." (Henry Smith Williams, p. 58.)

Thus from the initial activity of Light, exerted as Radiation Pressure, results the mighty aggregation of a solar sun and its attendant planetary family; a slight idea of the immensities involved being indicated when we remember that the actual mass of our sun is 332,000 times that of our earth, and the latter weighs approximately 5,272,600,000,000,000,000 tons. Yet the whole bulk of this little sun, chief luminary to earth, a 5th rate body in a minor solar system, is gaseous; although, due to enormous gravitational pressure, the sun's interior structure has a consistency more like dense liquid than what we ordinarily conceive of as gas; which explains our previous statement.

ALL NEBULAR NUCLEI PASS THROUGH SAME PROCESSES

All the nuclei pass through the same evolutionary processes and stages as does the parent nucleus or sun. Thus each in turn has its gaseous, liqueous (gravitational compression of the gaseous) and ultimate solid status. Jupiter for instance is 2/3 as dense as water, and Saturn 3/4 as dense.

LIGHT AND THE RADIOMETER

It is to Light that we owe our knowledge of the constituency of our planetary neighbors, for through the spectrum analysis, it reveals the presence of all known and some unknown elements and metals. Light rays both above and below the known spectrum are now powerful agents in modern use, such as the X Rays, Ultra violet, Helium and other rays, and for the simplest of all illustrations, the student has only to purchase an inexpensive radiometer at any optical store and watch the action resultant upon the impinging of the light rays or radiant energy upon the delicate apparatus. The blackened sides absorb, and the bright sides reflect. Some of these instruments are so delicate that a candle placed more than 1/2 of a mile away will turn the vanes through nearly 100 scale divisions.

HUMAN LIGHT RAYS

And last of all, the energy of light is shown by its perceptible radiation from the homo or human being under proper circumstances.

LIGHT ACTS ONLY ON INFINITESIMALS

Now, powerful as light has been shown to be, it must be noted that it is capable of acting only upon infinitesimal particles, and that when such particles aggregate, they enter the domain of gravitation. Prof. Arrhenius has estimated the size of a particle of matter that may be driven before a light wave, but it is indescribable in figures of comprehensible measurement.

RADIANT ENERGY

Radiant energy requires a medium of transmission, and between the Nebula as it comes to our vision and the "cosmic dust" or Cosmic Root Substance from which it originated lies a vast gulf. Therein lies the whole range of matter from Mass, Molecule, Atom or Ion, Elektron or Corpuscle, and Ether.

We will define them in order.

MASS

1 Mass is an aggregation of molecules. It is distinct from weight with which it is often confounded; weight being simply an indication of mass.

MOLECULE

2 A Molecule is the smallest particle of a substance that can exist in a free state, and which has the same composition as any large mass of the substance.

ATOM

3 An Atom is the smallest particle of an Element that exists in any molecule.

ION

4 An Ion is an atom or radical of a substance resulting from electrolytic decomposition or dissociation. Moving in the direction of the anode or positive pole, it is called an electro-negative ion. Moving in the opposite direction, it is the electro-positive ion. Gaseous ions are combinations of molecules with an electron, and are electro-conductors.

Broadly speaking then, an Ion is an atom charged with electricity.

CORPUSCLES

5 A Corpuscle is an electro-negative ion.

ELECTRONS

6 An Electron is identical with the corpuscle, but is the term used in lieu of corpuscles when explaining the ELECTRONIC THEORY OF MATTER, which is, that "all mass is the mass of the ether, all momentum, whether electrical or mechanical, the momentum, of the ether, and all kinetic energy, the kinetic energy of the ether".

All of these definitions will be amplified at the conclusion of this instruction.

ETHER

7 Ether is the great mystery of physical science. It is impossible to give to this mystery any "simple" explanation.

A MEDIUM

ETHER may be said to be the imponderable, hypothetical, but none the less real, medium; tenuous, and elastic, diffused throughout all Cosmos and which forms the avenue of transmission of radiant energy. It cannot be confined, and therefore much must always remain a matter of hypothesis regarding it.

ITS FAMILY PLACE

We do, however, know positively somewhat of its attributes and properties. Ether is not to be considered non-matter as such. Instead it is the simplest and lightest of the elements, an inactive GAS of the ARGON family, being assigned to position x of the Zero group. The atomic weight of Ether has been ascertained to be one millionth of that of the hydrogen atom, thus permitting its atoms to maintain a tremendous velocity, which explains its interpenetrating and all pervading presence.

ROSIKRUCIAN CONCEPT OF ETHER

As a matter of fact, however, Ether is of surpassing importance to the Rosicrucian, for it is to him the link between Spirit and Matter, Divinity and Humanity. We are taught that "In Him we live and move and have our being". We know that in the Ether are fulfilled all these conditions. This does not imply the reduction of Deity to a gas, but it must be kept in mind that when we speak of gases we mean the final disintegration from solids and liquids into the vaporous, ethereal state that, in comparison with our Physical world and its three dimensional concepts, must be largely analogous to the contrasting term "gaseous".

ETHER, THE DENSEST SUBSTANCE KNOWN

Now although Ether presents a gaseous and even fluidic state comparatively speaking, offering no resistance to the movements of objects through it, acting as a medium of transmission of waves of energy, penetrating and permeating all things in cosmos, the very attributes of omniscience and omnipresence, yet IT IS THE DENSEST AND MOST MASSIVE STRUCTURE IN THE COSMOS—again like omnipotence in this attribute.

MATTER LEAST SUBSTANTIAL

Rosicrucianism has always taught that the material world is the reflection of the spiritual world. Physical science now asserts that WHAT WE CALL MATTER IS THE MOST EPHEMERAL AND LEAST SUBSTANTIAL THING IN THE UNIVERSE.

ETHER

The unit particle of electricity which we call a corpuscle or electron owes its mass entirely to an infinitesimal quantity of Ether which is bound up with its substance.

ITS DENSITY

The density of ether attached to such a corpuscle has been found to be 2,000,000,000 times the density of lead.

It may seem inconceivable that we are immersed and exist in a medium two billion times as dense as lead, but the latest findings of physical science explain this by the statement that "MATTER IS COMPOSED MAINLY OF HOLES" to such an extent, that the volume of ether disturbed by the movement of matter through it, is infinitesimal compared with the volume enclosed by it.

SIZE OF ETHER GRANULES

Now Ether is composed of spherical granules so infinitely small that 700,000,000,000 of them in one line could lie in the trough of an ultra violet wave which is one seven-thousandth of an inch.

WHERE ROSIKRUCIANS AND PHYSICISTS AGREE

Here again Rosicrucians and academic physicists contact, for Prof. Reynolds says, "these granules are THE ULTIMATE OR PRIMORDIAL ATOMS, perfectly spherical and perfectly rigid, infinitely small in comparison with the electron or corpuscle.

ETHER GRANULES ARE COSMIC ROOT SUBSTANCE

And Rosicrucian philosophy asserts that Ether is composed of PRIMORDIAL ATOMS OF COSMIC ROOT SUBSTANCE, the "Cosmic Dust" of which the nebulae or worlds-in-the-making, are formed.

MATTER LIKENED TO BUBBLES

Prof. Reynolds further likens matter to bubbles. Prof. Mackenzie explains this as follows.— "You have all seen bubbles moving in water. Reynolds shows that the earth and all other material bodies move through space in a similar manner. They are less dense than the medium in which they exist, and their movements are due to differences of pressure in the surrounding medium. (Cosmically, the pressure due to the activities of the creating God) Real mass is not in the thing materially which we see, but in space where the eye sees nothing. The sober conclusion of the most advanced DYNAMICAL SCIENCE IS THAT MATTER IS A NEGATIVE THING SO FAR AS ITS MASS IS CONCERNED, AND THAT THE SPACE OCCUPIED BY MATTER CONTAINS VERY MUCH LESS THAN THE SPACE WHERE NO MATTER EXISTS".

WHAT THE UNIVERSE CONSISTS OF

"The entire universe of matter consists essentially of little maladjustments or flaws in the universal granular ether" and note this, Rosicrucian students, that each SPHERICAL GRANULE IS IN CONTACT WITH TWELVE OTHER SPHERICAL GRANULES THROUGHOUT THE ENTIRE ETHERIC MASS.

NATURE A SERIES OF REPRODUCTIONS

All Nature is a series of reproductions of processes. As the nebula originates the future solar system with its orbital processes, so in the smallest ponderable structure we find the same analogy.

THE CREATIVE LINK

The electron, as we have seen, is the electro negative corpuscle bound up with the infinitesimal portion of Ether. This latter, the Ether, may be considered Ether in its free state and therefore the positive element or pole, while the corpuscle or electron may be considered the crystallized Ether. Herein is the creative link.

Not crystallized in the sense of greater density than the primordial Ether, but in the sense of a focus or concentration. Thus we have in sequence—

DESCENT OF COSMIC ROOT SUBSTANCE

- 1 Cosmic Root substance, the spherical granules of ether.
- 2 Concentrated granules or corpuscles (electrons), negative.
- 3 Free granules, positive, (Essential activity of Deity). These two combine to produce the
- 4 Positive and negative ions, which compose the
- 5 Atoms, which combine to produce
- 6 Molecules, which combine to produce the
- 7 Mass, which is of two kinds,
- 8 Elements, an element being a substance whose molecule contains only one KIND of atom,—and
- 9 Compounds, a compound being a substance whose molecules contain two or more kinds of atoms, expressing first in the invisible, tenuous, spiritual state, then known as
- 10 Invisible matter, next by further concentration and crystallization into the state of
- 11 Visible matter, or the physical world, ultimately again returning to the
- 12 Invisible or spiritual world, ascending spirally toward its
- 13 Creative source,—DEITY.

All things "come from the center, travel around the circumference of evolutionary processes, upward, and return again to the center, as science bears out by its affirmation that ultimately, in the words of Profs. Stewart and Tait, it is certain that age after age the possibility of such transformations of energy is becoming less and less; and so, as far as we yet know, the FINAL STATE OF THE PRESENT UNIVERSE MUST BE AN AGGREGATION INTO ONE MASS OF ALL THE MATTER IT CONTAINS, i.e.—the potential energy gone, and a practically useless state of kinetic energy prevailing, i.e.,—uniform temperature existing throughout the mass".

ACTION OF THE 12 AROUND THE 13TH

Everywhere the activity of the twelve around the thirteenth will be found, for in the structure in the Atom we find it composed of electrons making up definite planetary systems within, circling about with infinite speeds in regular orbits, and one electron dislodged from its atomic system would dash from one atom to another at the speed of 49,000,000 times per second.

Students will recall that the attributes of the second aspect of triune Deity the Supreme Being, were the Word, POWER, AND MOTION; and of the third aspect, WILL, Wisdom and ACTIVITY.

HOW DEIFIC ATTRIBUTES MANIFEST

Rosicrucian philosophy teaches that the Power and Motion of the Supreme Being, and the Will and Activity of the Solar God, are the dualities that express themselves respectively as the free Ether and the corpuscles that form the basis of all later development in the cosmic scale.

ETHER A VEHICLE

The creative WORD and WISDOM is transmitted via the Radiant Energy of which Ether is the vehicle.

ENERGY A RAY FROM DEITY

A ray from Deity, a wave or ray of Radiant Energy dissociated, develops heat, light and ultra violet, the prime factors in creative process.

ETHERIC EQUATION

Ether also, represents mass to the cosmic root substance granule, as does physical mass the agglomeration and aggregation of structural physical atoms.

NUMBER OF ELEMENTS

An element was defined as a substance whose molecule contained only one kind of atom. There are seventy (the mystic number) such elements known to science.

THEIR COMBINATIONS AND PERMUTATIONS

These seventy atoms or elements may combine in a number of permutations reaching 250,000. Thus they furnish vehicles for the activities of all forms of demonstrable life.

ETHER FURNISHES SPIRITUAL SPHERES

So too, in the Ether, the corpuscular combinations furnish sublimate states or "spiritual spheres and planes" for the activities of those forms of spiritual life more closely approximating the celestial than the terrestrial.

THE COMMON TRIAD

Therefore, in common with physical science, Rosicrucianism holds with equal importance the knowledge of the triad

- 1 MATTER,
 - 2 Ether,
 - 3 Energy,
- as essential to the logical understanding of spiritual worlds as well as the physical and its origin.

DIVISIONS OF ENERGY

And just as the life stream in manifestation flows through differentiated channels of involuntary and evolutionary process, so also does the stream of cosmic energy operate through nine (again the mystic number) as follows;—

- | | | |
|------------------------|-------------------|---------------------|
| 1 Kinetic Energy | 4 Elastic Energy | 7 Electrical Energy |
| 2 Gravitational Energy | 5 Cohesive Energy | 8 Magnetic Energy |
| 3 Heat | 6 Chemical Energy | 9 Radiant Energy |

ALL MANIFESTATIONS OF ONE SOURCE

At the beginning however, the Rosicrucian student is taught that all force is a manifestation of the ONE FORCE, all Energy as of the ONE ENERGY, and all Substance as ultimately homogeneous.

On a preceding page we promised an amplification of the definitions already given, and these we will now take up in order. We will sum up first the POSITIVE ION of which little has been said. We know—



Directory.

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