

VIII.

LIFE, FORCE, OR GRAVITY.

THE *imponderable* fluids have had their day ; “mechanical Forces ” are less talked about ; Science has put on a new face for this last quarter of a century ; but gravitation has remained, owing its life to new combinations after the old ones had nearly killed it. It may answer scientific hypotheses very well, but the question is whether it answers as well to truth, and represents a fact in nature. Attraction by itself is *not* sufficient to explain merely planetary motion ; how can it presume to explain the rotatory motion in the infinitudes of Space ? Attraction alone will never fill all the gaps, unless a special impulse is admitted for every sidereal body, and the rotation of every planet with its satellites is shown to be due to some *one cause* combined with attraction. And even then, says an astronomer (“*Philosophie Naturelle*,” *art.* 142), Science would have to name that cause.

Occultism has named it for ages, and so have all the ancient philosophers ; but then all such beliefs are now proclaimed exploded superstitions. The “extra cosmic ” God has killed every possibility of belief in *intra* cosmic intelligent Forces, yet who, or what is the original *pusher* in that motion ? “When we have learned the cause, *unique et speciale*, that pushes, we will be ready to combine it with the one which attracts,” says Francœur (“*Astronomie*,” *p.* 342). And again—“Attraction between the celestial bodies is only repulsion : it is *the Sun that drives them incessantly onward* ; for otherwise, their motion would stop.”

If ever this theory of the Sun-Force being the primal cause of all life on earth and motion in heaven is accepted, and if that other far bolder one of Herschell—about certain organisms in the Sun—is accepted even as a provisional hypothesis, then will our teachings be vindicated, and esoteric allegory shown to have anticipated Modern Science by millions of years, probably, for these are the Archaic teachings. Mārttānda (the Sun) watches and threatens—without abandoning the central position to which his Mother, Aditi, relegated him—his seven brothers, the planets ; “he pursues them, turning slowly around himself . . . and follows them from afar, moving in the same direction that they do, on the path that encircles their houses”—or the orbit. (*See Comment to Stanza IV., Book I.*) It is the Sun-fluids or Emanations that impart all motion and awaken all into life, in the Solar System. It is attraction and repulsion, but not as understood by modern physics and according to the law of gravity ; but in harmony with *the laws of Manwantaric motion* de-

signed from the early *Sandhya*, the Dawn of the rebuilding and higher *reformation* of the System. These laws are immutable; but the motion of all the bodies, which motion is diverse and alters with every *minor* Kalpa—is regulated by the *Movers*, the Intelligences within the Cosmic Soul. Are we so very wrong in believing all this? Well, here is a modern and a great man of Science who, speaking of vital electricity, uses language far more akin to Occultism than to modern materialistic thought. We refer the sceptical reader to an article on “The Source of Heat in the Sun,” by Robert Hunt, F.R.S., (in “*Popular Science Review*,” Vol. IV., p. 148), who, speaking of the luminous envelope of the Sun and its “peculiar curdy appearance,” says:—

“Arago proposed that this envelope should be called the Photosphere, a name now generally adopted. By the elder Herschell, the surface of this photosphere was compared to mother-of-pearl. . . . It resembles the Ocean on tranquil summer-day, when its surface is slightly crisped by a gentle breeze. . . . Mr. Nasmyth has discovered a more remarkable condition than any that had previously been suspected. . . . objects which are peculiarly lens-shaped like ‘willow leaves’ different in size not arranged in any order crossing each other in all directions with an irregular motion among themselves They are seen approaching to and receding from each other, and sometimes assuming new angular positions, so that the appearance has been compared to a dense shoal of fish, which, indeed, they resemble in shape. . . . The size of these objects gives a grand idea of the gigantic scale upon which physical (?) operations are carried out in the Sun. They cannot be less than 1,000 miles in length, and from two to three hundred miles in breadth. *The most probable conjecture which has been offered respecting those leaf or lens-like objects, is that the photosphere* is an immense ocean of gaseous matter (what kind of “matter?”) . . . in a state of intense (apparent) incandescence, and that they are perspective projections of the sheets of flame. . . .*”

Solar “flames” seen through telescopes are *reflections*, says Occultism. But see what Occultists have to say to this in Book I.

“Whatever they may be (those sheets of flame), *it is evident they are the immediate sources of solar heat and light.* Here we have a surrounding envelope of photogenic matter,† which pendulates with mighty energies, and by communicating its motion to the ethereal medium in stellar space, produces heat and light in far distant worlds. We have said that those forms have been compared to certain organisms, and Herschell says, ‘Though it would be too daring to speak of such organizations as *partaking of life* [why not?],‡ yet we do not know that vital action is competent to develop heat, light, and electricity.’ . . . *Can it be that there is truth in this fine thought? May the pulsing of vital matter*

* And the *central mass*, too, as will be found, or rather the centre of the reflection.

† That “matter” is just like the reflection in a mirror of the flame from a “photogenic” *lamp-wick*.

‡ See “*Five Years of Theosophy*,” p. 258—answer to this speculation of Herschell’s.

in the central Sun of our System be the source of all that life which crowds the earth, and without doubt overspreads the other planets, to which the Sun is the mighty Minister ? ” . . .

Occultism answers these queries in the affirmative ; and Science will find this to be the case, one day.

Again, on p. 156, Mr. Hunt writes :—

“ But regarding Life—Vital Force—as a power far more exalted than either light, heat, or electricity, and indeed *capable of exerting a controlling power over them all* ” (this is absolutely occult). . . . “ we are certainly disposed to view with satisfaction that speculation which supposes the photosphere to be *the primary seat of vital power*, and to regard *with a poetic pleasure that hypothesis which refers the Solar energies to Life.* ”

Thus, we have an important scientific corroboration for one of our fundamental dogmas—namely, that (a) the Sun is the store-house of Vital Force, which *is the Noumenon* of Electricity ; and (b) that it is from its mysterious, never-to-be-fathomed depths, that issue those life currents which thrill through Space, as through the organisms of every living thing on Earth. For see what another eminent physician says, who calls this (our life-fluid) “nervous Ether.” Change a few sentences in the article, extracts from which now follow, and you have another *quasi-Occult treatise* on Life Force. This once, it is again Dr. B. W. Richardson, F.R.S., who gives his views in the “*Popular Science Review*,” Vol. X., p. 380—3, on “Nervous Ether,” as he has on “Sun-Force” and “Earth-Force” :—

“ The idea attempted to be conveyed by the theory is, that between the molecules of the matter, solid or fluid, of which the nervous organisms, and, indeed, of which all the organic parts of a body are composed, there exists a refined subtle medium, vaporous or gaseous, which holds the molecules in a condition for motion upon each other, and for arrangement and rearrangement of form ; a medium by and through which all motion is conveyed ; by and through which the one organ or part of the body is held in communion with the other parts, by which and through which the outer living world communicates with the living man : a medium, which, being present, enables the phenomena of life to be demonstrated, and which, being universally absent, leaves the body actually dead. . . . ”

And the whole Solar System falls into *Pralaya*—the author might have added. But let us read further :

. . . “ I use the word *Ether* in its general sense as meaning a very light, vaporous or gaseous matter ; I use it, in short, as the astronomer uses it when he speaks of the Ether of Space, by which he means a subtle but material medium. . . . When I speak of a *nervous Ether*, I do not convey that the ether is existent in nervous structure only : I believe truly that it is a special part of the nervous organization ; but, as nerves pass into all structures that have capacities for movement and sensibilities, so the nervous ether passes into all such parts ; and as the nervous ether is, according to my view, a direct product from blood, so we may look upon it as a part of the atmosphere of the blood.

. . . The evidence in favour of the existence of an elastic medium pervading the nervous matter and capable of being influenced by simple pressure is all-convincing. . . . In nervous structure there is, unquestionably, a true nervous fluid, as our predecessors taught.* The precise chemical (?) † composition of this fluid is not yet well known; the physical characters of it have been little studied. Whether it moves in currents, we do not know; whether it circulates, we do not know; whether it is formed in the centres and passes from them to the nerves, or whether it is formed everywhere where blood enters nerve, we do not know. The exact uses of the fluid we do not consequently know. It occurs to my mind, however, that the veritable fluid of nervous matter is not of itself sufficient to act as the subtle medium that connects the outer with the inner universe of man and animal. I think—and this is the modification I suggest to the older theory—there must be another form of matter present during life; a matter which exists in the condition of vapour or gas, which pervades the whole nervous organism, surrounds as an enveloping atmosphere‡ each molecule of nervous structure, and is the medium of all motion, communicated to and from the nervous centres. . . . When it is once fairly presented to the mind that during life there is in the animal body a finely diffused form of matter, a vapour filling every part—and even stored in some parts; a matter constantly renewed by the vital chemistry; a matter as easily disposed of as the breath, after it has served its purpose—a new flood of light breaks on the Intelligence.” . . .

A new flood of light is certainly thrown on the wisdom of ancient and mediæval Occultism and its votaries. For Paracelsus wrote the same thing more than three hundred years ago, namely, in the sixteenth century, as follows:—

“The whole of the Microcosm is potentially contained in the *Liquor Vitæ*, a nerve fluid . . . in which is contained the nature, quality, character, and essence of beings.” . . . (*De Generatione Hominis*). . . . “The Archæus or *Liquor Vitæ* is an essence that is equally distributed in all parts of the human body. . . . The *Spiritus Vitæ* takes its origin from the *Spiritus Mundi*. Being an emanation of the latter, it contains the elements of all cosmic influences, and is therefore the cause by which the action of the stars (cosmic forces) upon the invisible body of man (his *vital lingashariva*) may be explained.” (*De Viribus Membrorum*. See “Life of Paracelsus” by Franz Hartmann, M.D., F.T.S.)

Had Dr. Richardson studied all the secret works of Paracelsus, he would not have been obliged to confess so often—“we do not know” . . . “it is not known to us” . . . etc., etc. Nor would he have ever pronounced the following sentence, recanting the best portions of his independent *rediscovery*, in which he says (p. 384):—

* Paracelsus for one, who called it *liquor vitæ*, and *Archæus*.

† Rather *alchemical*—“composition.”

‡ “This vital force . . . radiates around man like a luminous sphere” . . . says Paracelsus in *Paragranum*.

“It may be urged that in this line of thought is included no more than the theory of the existence of the ether . . . supposed to pervade space. . . . It may be said that this universal ether pervades all the organism of the animal body as from without, and as part of every organization. This view would be Pantheism physically discovered *if it were true* (!!) It fails to be true because it would destroy the individuality of every individual sense. . . .”

We fail to see it, and *we know* it is not so. Pantheism *may* be “physically *rediscovered*.” It was known, seen, and felt by the whole of antiquity. Pantheism manifests itself in the vast expanse of the starry heavens, in the breathing of the seas and oceans and the quiver of life of the smallest blade of grass. Philosophy rejects one *finite* and *imperfect* God in the universe, as the anthropomorphic deity of the monotheist is represented by his followers. It repudiates in its name of *Philo-Theo-Sophia* the grotesque idea that Infinite, *Absolute* Deity should, or rather *could*, have any, whether direct or indirect, relation to finite illusive evolutions of matter, and therefore cannot imagine a universe *outside* that Deity, or the latter absent from the smallest speck of animate or inanimate substance.* Why either the Ether of Space, or “nervous Ether” should “destroy the individuality of every sense” seems incomprehensible for one acquainted with the real nature of that “nervous ether” under its Sanskrit, or rather esoteric and Kabalistic name. Dr. Richardson agrees that—

“If we did not individually produce the medium of communication between ourselves and the outer world, if it were produced from without and adapted to *one kind of vibration alone*, there were fewer senses required than we possess : for, taking two illustrations only—ether of light is not adapted for sound, and yet we hear as well as see ; while air, the medium of motion of sound, is not the medium of light, and yet we see and hear.”

This is not so. The opinion that “Pantheism *fails to be true* because it would destroy the individuality of every individual sense” shows that all the conclusions of the learned doctor are based on the modern physical theories, though he would fain reform them. But he will find it impossible to do this unless he allows the existence of spiritual senses to replace the gradual atrophy of the physical. “We see and hear,” in accordance (of course in Dr. Richardson’s mind) with the explanations of the phenomena of sight and hearing, by that same materialistic

* This does not mean that every bush, tree or stone is God or a god ; but only that every speck of the manifested material of Kosmos belongs to and is the substance of “God,” however low it may have fallen in its cyclic gyration through the Eternities of the ever becoming ; and also that every such speck individually, and Kosmos collectively, is an aspect and a reminder of that universal *One Soul*—which philosophy refuses to call God, thus limiting the eternal and ever-present root and essence.

science which postulates that we cannot see and hear otherwise. The Occultists and mystics know better. The Vedic Aryans were as familiar with the mysteries of sound and colour as our physiologists are on the physical plane, but they had mastered the secrets of both on planes inaccessible to the materialist. They knew of a double set of senses; spiritual and material. In a man who is deprived of one or more senses, the remaining become the more developed: *e.g.*, the blind man will recover his sight through the senses of touch, of hearing, etc., and he who is deaf will be able to hear through sight, by *seeing audibly* the words uttered by the lips and mouth of the speaker. But these are cases that belong to the world of matter still. The spiritual senses, those that act on a higher plane of consciousness are rejected *a priori* by physiology because the latter is ignorant of the sacred science. It limits the action of ether to vibrations, and, dividing it from air—though air is simply *differentiated* and compound ether—makes it assume functions to fit in with the special theories of the physiologist. But there is more real science in the teachings of the Upanishads when these are correctly understood, than the Orientalists, who do not understand them at all, are ready to admit. *Mental as well as physical correlations of the seven senses* (seven on the physical and seven on the mental planes) are clearly explained and defined in the Vedas, and especially in the Upanishad called Anugîtâ: “The indestructible and the destructible, such is the double manifestation of the Self. Of these the indestructible is the existent (the true essence or nature of Self, the underlying principles). The manifestation as an individual (or entity) is called the destructible.” Thus speaks the ASCETIC in Anugîtâ; and also: “Every one who is twice-born (initiated) knows such is the teaching of the ancients. . . . Space is the first entity. . . . Now Space (*Akâsa*, or the noumenon of Ether) has one quality . . . and that is sound only . . . and the qualities of sound are Shadga, Rishabha, Gândhâra, Madhyama, Panchama, and beyond these five Nishâda and Dhavata”; (the Hindu gamut). These seven notes of the scale are the principles of sound. (*Vide* ch. xxxvi. of *Anugîtâ*.) The qualities of every Element, as of every sense, are septenary, and to judge and dogmatize on them from their manifestation (likewise sevenfold in itself) on the material or objective plane above is quite arbitrary. For it is only by the SELF emancipating itself from these (seven) causes of illusion that one acquires the knowledge (secret wisdom) of the qualities of objects of sense on their dual plane of manifestation—the visible and the invisible. Thus it is said:—

“State this wonderful mystery Hear the assignment of causes exhaustively. The nose, and the tongue, and the eye, and the

skin, and the ear as the fifth (organ of sense) Mind and Understanding,* these seven (senses) should be understood to be the causes of (the knowledge of their) qualities. Smell, and taste, and colour, sound, and touch as the fifth, the object of the mental operation, and the object of the Understanding (the highest spiritual sense or perception), *these seven are causes of action*. He who smells, he who eats, he who sees, he who speaks, and he who hears as the fifth, he who thinks, and he who understands, these seven should be regarded as the *causes of the agents*.† These (the agents) being possessed of qualities (*sattwa, rajas, tamas*), enjoy their own qualities, agreeable and disagreeable" (*Anugitā*).

Then one reads in the Bhagavadgītā (chap. vii.) the Deity (or Krishna) saying :—

" . . . Only some know me truly. Earth, Water, Fire, Air, Space (or *Akāsa, Æther*), Mind, Understanding and Egoism (or the perception of all the former on the illusive plane). . . This is a *lower* form of my nature. Know (that there is) another (form of my) nature, and higher than this, which is animate, O you of mighty arms ! and by which this Universe is upheld. . . All this is woven upon me, like numbers of pearls upon a thread (*Mundakopanishd*, p. 298). . . I am the taste in the

* The division of the physical senses into five, comes to us from great antiquity. But while adopting the number, no modern philosopher has asked himself how these senses could exist, *i.e.*, be perceived and used in a self-conscious way, unless there was the *sixth* sense, mental perception to register and record them; and (this for the Metaphysicians and Occultists) the SEVENTH to preserve the spiritual fruition and remembrance thereof, as in a Book of Life which belongs to Karma. The ancients divided the senses into five, simply because their teachers (the Initiates) stopped at the *hearing*, as being that sense which developed in the *physical plane* (got dwarfed rather, limited to this plane) only at the beginning of the Fifth Race. (The Fourth Race already had begun to lose the *spiritual* condition, so pre-eminently developed in the Third Race.)

† The modern commentators, failing to comprehend the subtle meaning of the ancient Scholiasts, take this sentence, "causes of the agents," to mean "that the powers of smelling, etc., when attributed to the Self, make him appear as an agent, as an active principle" (!), which is entirely fanciful. These "seven" are understood to be the causes of the Agents, because "the objects are causes, as their enjoyment causes an impression." It means esoterically that they, these seven senses, *are caused by the AGENTS*, which are the "deities," for what does, or can, the sentence which follows this one mean? "Thus," it is said, "these seven (senses) are the causes of emancipation" (*i.e.*, when these causes are made ineffectual). "And among the learned (the wise Initiates) who understand the qualities *which are in the position* (in the nature, rather) *of the deities*, each in its place," means simply that the "learned" understand the nature of the *noumenoi* of the various phenomena"; and that "qualities," in this instance, mean the qualities of the high planetary or Elementary gods or Intelligences, which rule the elements and their *products*, and not at all "the senses," as the modern commentator thinks. For the "learned do not suppose their senses to have aught to do with them, any more than with their SELF." (*Vide* pp. 278 and 279 of the VIII. Vol. of "The Sacred Books of the East." *Anugitā*.)

water, O son of Kunti! I am the light of the sun and moon. I am . . . sound ('*i.e.*, the Occult essence which underlies all these and the other qualities of the various things mentioned,' *Transl.*), in space . . . the fragrant smell in the earth, refulgence in the fire . . . etc., etc."

Truly, then, one should study Occult philosophy before one begins to verify and seek the mysteries of nature on its surface alone, as he alone "who knows the truth about the qualities of nature, who understands the creation of all entities . . . is emancipated" from error. Says the "preceptor": "Accurately understanding the great tree of which the unperceived (Occult nature, the root of all) is the sprout from the seed (Parabrahmam) which consists of the understanding (*Mahat*, or the universal intelligent Soul) as its trunk, the branches of which are the great egoism,* in the holes of which are the sprouts, namely, the senses, of which the great (Occult, or invisible) elements are the flower-bunches,† the gross elements (the gross objective matter), the smaller boughs, which are always possessed of leaves, always possessed of flowers . . . which is eternal and the seed of which is the Brahman (the deity); and cutting it with that excellent sword—knowledge (secret wisdom)—one attains immortality and casts off birth and death."

This is the Tree of Life, the Asvattha tree, only *after* the cutting of which the slave of life and death, MAN, can be emancipated.

But the men of Science know nought, nor will they hear of the "Sword of Knowledge" used by the adepts and ascetics. Hence the one-sided remarks of the most liberal among them, based on and flowing from undue importance given to the arbitrary divisions and classification of physical science. Occultism heeds them very little, and nature still less. The whole range of physical phenomena proceed from the *Primary* of Ether—Akâsa, as dual-natured Akâsa proceeds from undifferentiated *Chaos*, so-called, the latter being the primary *aspect* of Mulaprakriti, the root-matter and the first abstract Idea one can form of Parabrahmam. Modern Science may divide its hypothetically conceived ether in as many ways as it likes; the *real* Æther of Space will remain as it is throughout. It has its seven principles, as all the rest of nature has, and where there was no Ether *there would be no sound*, as it is the vibrating sound-board in nature in all of its seven differentiations. This is the first mystery the Initiates of old have learned. Our present normal physical senses were (from our present point of view) abnormal in those days of slow and progressive downward evolution and fall into matter. And there was a day when all that which in our modern times is regarded as phenomena, so puzzling to the

* *Ahamkara*, I suppose, that *Egoship* (or *Ahamship*) which leads to every error.

† The elements are the five *tanmâtras* of earth, water, fire, air and ether, the producers of the grosser elements.

physiologists now compelled to believe in them—such as thought transference, clairvoyance, clairaudience, etc.; in short, all that which is called now “wonderful and abnormal”—all that and much more belonged to the senses and faculties common to all humanity. We are, however, cycling back and cycling forward; *i.e.*, having lost in spirituality that which we acquired in physical development until almost the end of the Fourth Race, we (mankind) are as gradually and imperceptibly losing now in the physical all that we regain once more in the spiritual *re*-evolution. This process must go on until the period which will bring the Sixth Root-Race on a parallel line with the spirituality of the Second, long extinct mankind.

But this will hardly be understood at present. We must return to Dr. Richardson’s hopeful though somewhat incorrect hypothesis about “nervous ether.” Under the misleading translation of the word as “Space” (*Akāśa*), it has just been shown in the ancient Hindu system as the “first born” of the One, having but one quality, SOUND (which is septenary). In esoteric language this “One” is the “Father” Deity, and “Sound” is synonymous with *Logos* (Verbum, or the *Son*). Whether consciously or otherwise, it must be the latter; and Dr. Richardson, while preaching an Occult doctrine—chooses the lowest form of the septenary nature of that “SOUND” and speculates upon it, adding:—

“The theory, I offer, is that the nervous Ether *is an animal product*. In different classes of animals it may differ in physical quality so as to be adapted to the special wants of the animal, but essentially it plays one part in all animals, and is produced, in all, in the same way. . . .”

Herein lies the nucleus of error leading to all the resultant mistaken views. This “Nervous Ether” is the lowest principle of the Primordial Essence which is *Life*. It is *animal vitality* diffused in all nature and acting according to the conditions it finds for its activity. It is not an “animal product,” but the living animal, the living flower or plant are *its* products. The animal tissues only absorb it according to their more or less morbid or healthy state—as do *physical* materials and structures (*in their primogenial State—nota bene*)—and henceforward, from the moment of the birth of the Entity, are regulated, strengthened, and *fed* by it. It descends in a larger supply to vegetation in the *Sushumna* sun-ray which lights and feeds the moon, and it is through her beams that it pours its light upon, and penetrates man and animal, more during their sleep and rest, than when they are in full activity. Therefore Dr. Richardson errs again in stating that:—

“The nervous ether is not, according to my idea of it, in *itself active*, nor an *excitant of animal motion in the sense of a force*; but it is essential as supplying the conditions by which the motion is rendered possible.” (It is *just the reverse*.) “It is the conductor of all vibrations of heat, of light, of sound, of electrical action, of mechanical

friction.* It holds the nervous system throughout in perfect tension, during states of life (*true*). By exercise it is disposed of (*rather generated*) . . . and when demand for it is greater than the supply, its deficiency is indicated by nervous collapse or exhaustion.† It accumulates in the nervous centres during sleep, bringing them, if I may so speak, to their due tone, and therewith raising the muscles to awakening and renewed life. . . .”

Just so; this is quite correct, and as comprehensible. Therefore, “The body fully renewed by it, presents capacity for motion, fulness of form, *life*. The body bereft of it presents inertia, the configuration of shrunken death, *the evidence of having lost something physical that was in it when it lived.*”

Modern Science denies the existence of a “vital principle.” This extract is a clear proof of its grand mistake. But this “physical something,” that we call life-fluid—the *Liquor Vitæ* of Paracelsus—has not *deserted the body*, as Dr. Richardson thinks. It has only changed its state from activity to passivity, and become latent owing to the too morbid state of the tissues, on which it has no more hold. Once the *rigor mortis* absolute, the “*Liquor Vitæ*” will re-awaken into action, and begin its work on the atoms *chemically*. Brahmâ-Vishnu—the creator and the Preserver of Life—will have transformed himself into Siva the *Destroyer*.

Lastly he writes on p. 387:—

“The nervous Ether may be poisoned; it may, I mean, have diffused through it, by simple gaseous diffusion, other gases or vapours derived from without; it may derive from within products of substances swallowed and ingested, or gases of decomposition produced during disease in the body itself.”

And the learned gentleman might have added on the same Occult principle: “That the ‘nervous Ether’ of one person can be poisoned by the ‘nervous Ether’ of another person or his *auric emanations*. But see what Paracelsus said of ‘Nervous Ether’”:—

“The Archæus is of a magnetic nature, and *attracts or repels* other sympathetic or antipathetic forces belonging to the same plane. The less power of resistance for astral influences a person possesses, the more will he be subject to such influences. The vital force is not enclosed in man, but radiates (within) and around him like a luminous sphere (aura) and it may be made to act at a distance. . . . It *may poison the essence of life (blood) and cause diseases*, or it may purify it after

* The conductor in the sense of *Upadhi*—a material or physical basis; but, as the second principle of the universal Soul and *Vital Force* in Nature, it is *intelligently* guided by the fifth principle thereof.

† And too great an exuberance of it in the nervous system leads as often to disease and death. If it were the *animal system which generated it*, such would not be the case, surely. Hence, the latter emergency shows its independence of the system, and connection with the Sun-Force, as Metcalfe and Professor Hunt explain it.

it has been made impure, and restore the health" (*Paragranum*; "Life of Paracelsus," by Dr. F. Hartmann.)

That the two, Archæus and "nervous Ether," are identical, is shown by the English Scientist, who says that the tension of it *generally* may be too high or too low; that it may be so "owing to local changes in the nervous matter it invests." . . . "Under sharp excitation it may vibrate as if in a storm and plunge every muscle under cerebral or spinal control into uncontrolled motion—unconscious convulsions."

This is called nervous excitation, but no one, except Occultists, knows the reason of such nervous perturbation or explains the *primary* causes of it. The "principle of Life" may kill *when too exuberant*, as also when there is too little of it. But this principle on the manifested (or our) plane is but the effect and the result of the *intelligent action* of the "Host"—collectively, Principle—the manifesting LIFE and LIGHT. It is itself subordinate to, and emanates from the ever-invisible, eternal and Absolute ONE LIFE in a descending and a re-ascending scale of hierarchic degrees—a true septenary ladder, with SOUND (or the Logos) at the upper end and the Vidyadharas* (the inferior Pitris) at the lower.

* In a recent work on the Symbolism in Buddhism and Christianity (in Buddhism and Roman Catholicism, rather, many later rituals and dogmas in Northern Buddhism in its *popular exoteric form*, being identical with those of the Latin Church) some curious facts are to be found. The author of this volume, with more pretensions than erudition, has indiscriminately crammed into his work ancient and modern Buddhist teachings, and sorely confused Lamaism with Buddhism. On page 404 of this volume, called "*Buddhism in Christendom, or Jesus the Essene*," our *pseudo-Orientalist* devotes himself to criticizing the "Seven Principles" of the Esoteric Buddhists, and attempts to ridicule them. On page 405, the closing page, he speaks enthusiastically of the *Vidyadharas*, "the seven great legions of dead men made wise." Now, these "*Vidyadharas*," whom some Orientalists call "demi-gods," are in fact, exoterically, a kind of Siddhas, "affluent in devotion," and, *esoterically*, they are identical with the seven classes of Pitris, one class of which endow man in the Third Race with Self-Consciousness by incarnating in the human shells. The "Hymn to the Sun," at the end of his queer volume of mosaic, which endows Buddhism with a *personal god* (!!), is an unfortunate thrust at the very proofs so elaborately collected by the unlucky author.

Theosophists are fully aware that Mr. Rhys Davids has expressed his opinion on their beliefs likewise. He said that the theories propounded by the author of Esoteric Buddhism "were not Buddhism, and were not Esoteric." The remark is the result of (a) the unfortunate mistake of writing "Buddhism" instead of "Budhaism," or *Budhism, i.e.*, of connecting the system with Gautama's religion instead of with the Secret Wisdom taught by Krishna, Sankaracharya, and by many others, as much as by Buddha; and (b) of the impossibility of Mr. Rhys Davids knowing anything of true esoteric teachings. But he is, at all events, the greatest Pali and Buddhist scholar of the day, and whatever he may say is entitled to respectful hearing. But when one who knows no more of exoteric Buddhism on scientific and materialistic lines, than he knows of esoteric philosophy, defames those whom he honours with his spite, and assumes with the Theosophists the airs of a profound scholar, one can only smile and—heartily laugh at him.

Of course, the Occultists are fully aware of the fact that the Vitalist "fallacy," so derided by Vogt and Huxley, is, nevertheless, still countenanced in very high scientific quarters, and, therefore, they are happy to feel that they do not stand alone. Thus, Professor de Quatrefages writes:—

"It is very true we do not know *what life is*; but no more do we know *what the force is* that set the stars in motion. . . . Living beings are heavy, and therefore subject to gravitation; they are the seat of numerous and various physico-chemical phenomena which are indispensable to their existence, and which must be referred to the action of etherodynamy (electricity, heat, etc.). But these phenomena are here manifested *under the influence of another force*. . . . Life is not antagonistic to the inanimate forces, but it governs and rules their action by its laws."*

IX.

THE SOLAR THEORY.

A SHORT ANALYSIS OF THE COMPOUND AND SINGLE ELEMENTS OF SCIENCE AS AGAINST THE OCCULT TEACHINGS. HOW FAR SCIENTIFIC IS THIS THEORY, AS GENERALLY ACCEPTED.

IN his reply to Dr. Gull's attack on the theory of vitality (connected inseparably with the Elements of the ancients in the Occult philosophy), Professor Beale, the great physiologist, has a few words as suggestive as they are beautiful:—

"There is a mystery in life—a mystery which has never been fathomed, and which appears greater, the more deeply the phenomena of life are studied and contemplated. In living centres—far more central than the centres seen by the highest magnifying powers, in centres of living matter, where the eye cannot penetrate, but towards which the understanding may tend—proceed changes of the nature of which the most advanced physicists and chemists fail to afford us the conception: *nor is there the slightest reason to think that the nature of these changes will ever be ascertained by physical investigation*, inasmuch as they are certainly of an order or nature *totally distinct* from that to which any other phenomenon known to us can be relegated."

This "mystery," or the origin of the LIFE ESSENCE, Occultism locates in the same centre as the nucleus of *prima materia* (for they are one) of our Solar system.

* "*The Human Species*," p. 11.

“*The Sun is the heart of the Solar World (System) and its brain is hidden behind the (visible) Sun. From thence, sensation is radiated into every nerve-centre of the great body, and the waves of the life-essence flow into each artery and vein. . . . The planets are its limbs and pulses. . . .*” (Commentary.)

It was stated elsewhere (*in the Theosophist*) that Occult philosophy denies that the Sun is a globe in combustion, but defines it simply as a world, a glowing sphere, the *real* Sun being hidden behind, and the visible being only its reflection, its *shell*. The Nasmyth willow leaves, mistaken by Sir J. Herschell for “Solar inhabitants,” are the reservoirs of solar vital energy, “the vital electricity that feeds the whole system. . . . The Sun *in abscondito* being thus the storehouse of our little Kosmos, self-generating its vital fluid, and ever receiving as much as it gives out,” and the *visible* Sun only a *window cut into the real* Solar palace and presence, which reflects, however, faithfully the interior work.

Thus, there is a regular circulation of the vital fluid throughout our system, of which the Sun is the heart—the same as the circulation of the blood in the human body—during the manvantaric solar period, or life; the Sun contracting as rhythmically at every return of it, as the human heart does. Only, instead of performing the round in a second or so, it takes the solar blood ten of its years, and a whole year to pass through its *auricles* and *ventricles* before it washes the *lungs* and passes thence to the great veins and arteries of the system.

This, Science will not deny, since Astronomy knows of the fixed cycle of eleven years when the number of solar spots increases,* *which is due to the contraction* of the Solar HEART. The universe (our world in this case) breathes, just as man and every living creature, plant, and even mineral does upon the earth; and as our globe itself breathes every twenty-four hours. The dark region is *not* due “to the absorption exerted by the vapours issuing from the bosom of the sun and interposed between the observer and the photosphere,” as Father Secchi would have it (“*Le Soleil*” II., 184), nor are the spots formed “by the matter (heated gaseous matter) which the irruption projects upon the solar disc” (*ibid*). It is similar to the regular and healthy pulsation of the heart, as the life fluid passes through its hollow muscles. Could the human heart be made luminous, and the living and throbbing organ be made visible, so as to have it reflected upon a screen, such as

* Not only does it not deny the occurrence, though attributing it to a wrong cause, as always, each theory contradicting every other, (*see the theories of Secchi, of Faye, and of Young*), the spots depending on the superficial accumulation of vapours cooler than the photosphere (?), etc., etc., but we have men of science who *astrologize* upon the spots. Professor Jevons attributes all the great periodical commercial crises to the influence of the Sun spots every eleventh cyclic year. (*See his “Investigations into Currency and Finance.”*) This is worthy of praise and encouragement surely.

used by the astronomers in their lectures—say for the moon—then every one would see the Sun-spot phenomenon repeated every second—due to its contraction and the rushing of the blood.

It is said in a work on Geology that it is the *dream of Science* that “all the recognized chemical elements will one day be found *but modifications of a single material element.*” (“*World-Life,*” p. 48.)

Occult philosophy has taught this since the existence of human speech and languages, adding only, on the principle of the immutable law of analogy—“as it is above, so it is below”—that other axiom, that there is neither Spirit nor matter, in reality, but only numberless aspects of the One ever-hidden IS (or *Sat*). The homogeneous primordial Element is *simple* and *single only on the terrestrial plane* of consciousness and sensation, since matter, after all, is nothing else than the sequence of our own states of consciousness, and Spirit an idea of psychic intuition. Even on the next higher plane, that *single element* which is defined on our earth by current science, as the ultimate undecomposable constituent of some kind of matter, would be pronounced in the world of a higher spiritual perception as something very complex indeed. Our purest water would be found to yield, instead of its two declared *simple* elements of oxygen and hydrogen, many other constituents, undreamt of by our terrestrial modern chemistry. As in the realm of matter, so in the realm of Spirit, the shadow of that which is cognized on the plane of objectivity exists on that of pure subjectivity. The speck of the perfectly homogeneous substance, the sarcode of the Hæckelian *monera*, is now viewed as the *archebiosis* of terrestrial existence (Mr. Huxley’s “protoplasm”)*; and *Bathybius Hæckelii* has to be traced to its *pre-terrestrial archebiosis*. This is first perceived by the astronomers at its third stage of evolution, and in the “secondary creation,” so-called. But the students of Esoteric philosophy understand too well the secret meaning of the stanza: “Brahmâ has essentially the *aspect of prakriti*, both evolved and unevolved . . . Spirit, O twice-born, (Initiate) is the leading *aspect* of Brahmâ. The next is a two-fold aspect—of Prakriti and Purusha, both evolved and unevolved; and *time* is the last! *Anu* is one of the names of Brahmâ (as distinct from Brahma neuter), and it means “atom”: Aníyâmsam añiyasâm, “the most atomic of the atomic,” the “immutable and imperishable (achyuta) Purushottama.”

Surely, then, the elements now known to us—be their number whatever it may—as they are understood and defined at present, are not,

* Unfortunately, as these pages are being written the “*archebiosis* of terrestrial existence” has turned, under a somewhat stricter chemical analysis, into a simple precipitate of sulphate of lime—hence from the scientific standpoint not even an *organic substance*!!! *Sic transit gloria mundi!*

nor can they be, the *primordial* elements. Those were formed from “*the curds of the cold radiant mother*” and “*the fire-seed of the hot Father*” who “*are one*,” or, to express it in the plainer language of modern science, those elements had their genesis in the depths of the primordial fire-mist—the masses of incandescent vapour of the *irresolvable* nebulæ; for as Professor Newcomb shows (in his “*Popular Astronomy*,” on pages 444), *resolvable* nebulæ are not a class of proper nebulæ.

More than half of those which were at first mistaken for nebulae—he thinks—are what he calls “*starry clusters*.” The elements now known, have arrived at their state of permanency in this 4th Round and 5th Race. They have a short period of rest before they are propelled once more on their upward spiritual evolution; when the “*living fire of Orcus*” will dissociate the most irresolvable and scatter them into the primordial ONE—again.

Meanwhile the Occultist goes further, as has been shown in the Commentaries on the Seven Stanzas. Hence he can hardly hope for any help or recognition from science, which will reject both his “*ánfyámsam anfyásám* (the absolutely spiritual atom) and his Manasaputras—“*mind-born men*.” By resolving the “*single material element*” into one absolute *irresolvable* element—Spirit, or “*Root-matter*,” thus placing it at once outside the reach and province of physical philosophy—he has, of course but little in common with the orthodox men of science. He maintains that Spirit and Matter are two FACETS of the unknowable UNITY, their apparently contrasted aspects depending, (a) on the various degrees of differentiation of the latter, and (b) on the grades of consciousness attained by man himself. This is, however, metaphysics, and has little to do with physics—however great in its own terrestrial limitation that physical *philosophy* may now be.

Nevertheless, once that Science admits, if not the actual existence, at any rate, the possibility of the existence, of a Universe with its numberless forms, conditions, and aspects built out of a “*single substance*,”* it has

* In his “*World-Life*”—page 48—in the appended foot notes, Professor Winchell says:—“It is generally admitted that at excessively high temperatures matter exists in a state of dissociation—that is, no chemical combination can exist;” and would appeal, to prove the unity of matter, to the spectrum, which in every case of homogeneity will show a *bright* line, whereas in the case of several molecular arrangements existing—in the nebulæ say, or a star—“the spectrum should consist of two or three bright lines!” This would be no proof either way to the physicist-Occultist, who maintains that beyond a certain limit of *visible* matter, no spectrum, no telescope and no microscope are of any use. The unity of matter, of that which is real cosmic matter to the Alchemist, or “*Adam’s Earth*” as the Kabalists call it, can hardly be proved or disproved, by either the French *savant* Dumas, who suggests “the composite nature of the “*elements*” on certain relations of atomic weights,” or even by Mr. Crookes’s “*radiant matter*,” though his experiments may seem

to go further. Unless it also admits the possibility of One Element, or the ONE LIFE of the Occultists. It will have to hang up that "single substance," especially if limited to only the solar nebulae, like the coffin of Mahomet, in mid air, though minus the attractive magnet that sustains that coffin. Fortunately for the speculative physicists, if unable to state with any degree of precision what the nebular theory *does* imply, we have, thanks to Professor Winchell, and several disagreeing astronomers, been able to learn what *it does not* imply.* (*Vide Supra.*)

Unfortunately, this is far from clearing even the most simple of the problems that have vexed, and still do vex, the men of learning in their research after truth. We have to proceed with our inquiries, starting with the earliest hypotheses of modern science, if we would discover *where* and *why* it sins. Perchance it may be found that Stallo is right, after all. That the blunders, contradictions, and fallacies made by the most eminent men of learning are simply due to their abnormal attitude. They are, and want to remain materialistic *quand même*, and yet "the general principles of the atomo-mechanical theory—the basis of modern physics—are *substantially identical* with the cardinal doctrines of ontological metaphysics." Thus, "the fundamental errors of ontology become apparent in proportion to the advance of physical Science." (Int. p. VI., "Concepts of Modern Physics.") Science is honeycombed with metaphysical conceptions, but the Scientists will not admit the charge and fight desperately to put atomo-mechanical masks on purely incorporeal and spiritual laws in nature, on our plane—refusing to admit their substantiality even on other planes, the bare existence of which they reject *à priori*.

It is easy to show, however, how Scientists, wedded to their materialistic views, have endeavoured, ever since the day of Newton, to put false masks on fact and truth. But their task is becoming with every year more difficult; and with every year also, Chemistry, above all the other sciences, approaches nearer and nearer the realm of the Occult in nature. It is assimilating the very truths taught by the Occult Sciences

"to be best understood on the hypothesis of the homogeneity of the elements of matter, and the continuity of the states of matter." For all this does not go beyond MATERIAL matter, so to say, even in what is shown by the *spectrum*, that modern "eye of Siva" of physical experiments. It is of this matter only, that H. St. Claire Deville could say that "when bodies, deemed to be simple, combine with one another, they vanish, they are *individually annihilated*"; simply because he could not follow those bodies in their further transformation in the world of *spiritual* cosmic matter. Verily modern science will never be able to dig deep enough into the cosmological formations to find the *roots* of the world-stuff or matter, unless she works on the same lines of thought as the medieval alchemist did.

* "World-Life," *Ibid.*

for ages, but hitherto bitterly derided. "Matter is eternal," says the Esoteric Doctrine. But the matter the Occultists conceive of in its *laya*, or *zero state*, is not the matter of modern science; not even in its most rarefied gaseous state. Mr. Crookes' "radiant matter" would appear matter of the grossest kind in the realm of the beginnings, as it becomes pure spirit before it has returned back even to its first point of differentiation. Therefore, when the adept or alchemist adds that, though matter is eternal, for it is PRADHĀNA, yet atoms *are born at every new manvantara*, or reconstruction of the universe, it is no such contradiction as a materialist, who believes in nothing beyond the atom, might think. There is a difference between *manifested* and *unmanifested* matter, between *pradhāna*, the beginningless and endless cause, and *prakṛiti*, or the manifested effect. Says the sloka;—

"That which is the unevolved cause is emphatically called by the most eminent sages, *pradhāna*, *original base*, which is subtle *prakṛiti*, viz., that which is eternal, and which at once is, and is not, a mere process."*

That which in modern phraseology is respectively referred to as Spirit and Matter, is ONE in eternity as the perpetual cause, and it is neither Spirit nor matter, but IT—rendered in Sanskrit TAD ("that"),—all that is, was, or will be, all that the imagination of man is capable of conceiving. Even the exoteric Pantheism of Hinduism renders it as no monotheistic philosophy ever did, for in superb phraseology its cosmogony begins with the well-known words:—

"There was neither day nor night, neither heaven nor earth, neither darkness nor light. And there was not ought else apprehensible by the senses or by the mental faculties. There was then one Brahmā, essentially *prakṛiti* (Nature) and Spirit. For the two aspects of Vishnu which are other than his supreme essential aspect are prakṛiti and Spirit, and Brahman. When these two other ASPECTS of his no longer subsist, but are dissolved, then that aspect whence form and the rest, i.e., creation, proceed anew, is denominated time, O twice-born."

It is that which is dissolved, or the illusionary dual aspect of That, the essence of which is eternally ONE, that we call eternal matter or Substance (Vide in Part II., "*Primordial Substance and Divine Thought*"), formless, sexless, inconceivable, even to our sixth sense or mind,† in which, therefore, we refuse to see that which Monotheists call a *personal*, anthropomorphic God.

How are these two propositions—"that matter is eternal," and "the atom periodical, and not eternal"—viewed by modern exact Science? The materialistic physicist will criticize and laugh them to scorn. The

* Book I. ch. II. *Vishnu Purāna*, Fitzedward Hall's Translation.

† Vide preceding Section IX., "Life, Force, and Gravity," quotation from *Anugitā*.

liberal and progressive man of Science, however, the true and earnest scientific searcher after truth—*e.g.*, the eminent chemist, Mr. Crookes, will corroborate the *probability* of the two statements. For, hardly has the echo of his lecture on the “Genesis of the Elements” died away—the lecture which, delivered by him before the Chemical Section of the British Association, at the last Birmingham meeting, so startled every evolutionist who heard or read it—than there came another one in March last, 1888. Once more the President of the Chemical Society brings before the world of Science and the public the fruits of some new discoveries in the realm of atoms, and these discoveries justify the occult teachings in every way. They are more startling even than the statements made by him in the first lecture (quoted later) and deserve well the attention of every Occultist, Theosophist, and Metaphysician. This is what he says in his “Elements and *Meta-Elements*,” thus justifying Stallo’s charges and prevision with the fearlessness of a scientific mind which loves science for truth’s sake, regardless of any consequences to his own glory and reputation. We quote his own words:

Permit me, gentlemen, now to draw your attention for a short time to a subject which concerns the fundamental principles of chemistry, a subject which may lead us to admit the possible existence of bodies which, though neither compounds nor mixtures, are not elements in the strictest sense of the word—bodies which I venture to call “meta-elements.” To explain my meaning it is necessary for me to revert to our conception of an element. What is the criterion of an element? Where are we to draw the line between distinct existence and identity? No one doubts that oxygen, sodium, chlorine, sulphur are separate elements; and when we come to such groups as chlorine, bromine, iodine, &c., we still feel no doubt, although were degrees of “elementicity” admissible—and to that we may ultimately have to come—it might be allowed that chlorine approximates much more closely to bromine than to oxygen, sodium, or sulphur. Again, nickel and cobalt are near to each other, very near, though no one questions their claim to rank as distinct elements. Still I cannot help asking what would have been the prevalent opinion among chemists had the respective solutions of these bodies and their compounds presented identical colours, instead of colours which, approximately speaking, are mutually complementary. Would their distinct nature have even now been recognised? When we pass further and come to the so-called rare earths the ground is less secure under our feet. Perhaps we may admit scandium, ytterbium, and others of the like sort to elemental rank; but what are we to say in the case of praseo- and neo-dymium, between which there may be said to exist no well-marked chemical difference, their chief claim to separate individuality being slight differences in basicity and crystallizing powers, though their physical distinctions, as shown by spectrum observations, are very strongly marked? Even here we may imagine the disposition of the majority of chemists would incline toward the side of leniency, so that they would admit these two bodies within the charmed circle. Whether in so doing they would be able to appeal to any broad principle is an open question. If we admit these candidates

how in justice are we to exclude the series of elemental bodies or meta-elements made known to us by Krüss and Nilson? Here the spectral differences are well marked, while my own researches on didymium show also a slight difference in basicity between some at least of these doubtful bodies. In the same category must be included the numerous separate bodies into which it is probable that yttrium, erbium, samarium, and other "elements"—commonly so-called—have been and are being split up. Where then are we to draw the line? The different groupings shade off so imperceptibly the one into the other that it is impossible to erect a definite boundary between any two adjacent bodies and to say that the body on this side of the line is an element, while the one on the other side is non-elementary, or merely something which simulates or approximates to an element. Wherever an apparently reasonable line might be drawn it would no doubt be easy at once to assign most bodies to their proper side, as in all cases of classification the real difficulty comes in when the border-line is approached. Slight chemical differences, of course, are admitted, and, up to a certain point, so are well-marked physical differences. What are we to say, however, when the only chemical difference is an almost imperceptible tendency for the one body—of a couple or of a group—to precipitate before the other? Again, there are cases where the chemical differences reach the vanishing point, although well-marked physical differences still remain. Here we stumble on a new difficulty: in such obscurities what is chemical and what is physical? Are we not entitled to call a slight tendency of a nascent amorphous precipitate to fall down in advance of another a "physical difference?" And may we not call coloured reactions depending on the amount of some particular acid present and varying, according to the concentration of the solution and to the solvent employed, "chemical differences?" I do not see how we can deny elementary character to a body which differs from another by well-marked colour, or spectrum-reactions, while we accord it to another body whose only claim is a very minute difference in basic powers. Having once opened the door wide enough to admit some spectrum differences, we have to inquire how minute a difference qualifies the candidate to pass? I will give instances from my own experience of some of these doubtful candidates.

And here the great chemist gives several cases of the very extraordinary behaviour of molecules and earths, apparently the same, and which yet, when examined very closely, were found to exhibit differences which, however imperceptible, still show that none of them are *simple* bodies, and that the 60 or 70 elements accepted in chemistry, can no longer cover the ground. Their name, apparently, is legion, but as the so-called "periodic theory" stands in the way of an unlimited multiplication of elements, Mr. Crookes is obliged to find some means of reconciling the new discovery with the old theory. "That theory," he says:—

"Has received such abundant verification that we cannot lightly accept any interpretation of phenomena which fails to be in accordance with it. But if we suppose the elements reinforced by a vast number of bodies slightly differing from each other in their properties, and forming, if I may use the expression,

aggregations of nebulæ where we formerly saw, or believed we saw, separate stars, the periodic arrangement can no longer be definitely grasped. No longer, that is, if we retain our usual conception of an element. Let us, then, modify this conception. For "element" read "elementary group"—such elementary groups taking the place of the old elements in the periodic scheme—and the difficulty falls away. In defining an element, let us take not an external boundary, but an internal type. Let us say, *e.g.*, the smallest ponderable quantity of yttrium is an assemblage of ultimate atoms almost infinitely more like each other than they are to the atoms of any other approximating element. It does not necessarily follow that the atoms shall all be absolutely alike among themselves. The atomic weight which we ascribed to yttrium, therefore, merely represents a mean value around which the actual weights of the individual atoms of the "element" range within certain limits. But if my conjecture is tenable, could we separate atom from atom, we should find them varying within narrow limits on each side of the mean. The very process of fractionation implies the existence of such differences in certain bodies."

Thus fact and truth have once more forced the hand of "exact" Science, and compelled it to enlarge its views and change its terms which, masking the multitude, reduced them to one body—like the Septenary Elohim and their hosts transformed by the materialistic religionists into one Jehovah. Replace the chemical terms "Molecule," "atom," "particle," etc., by the words "Hosts," "Monads," "Devas," etc., and one might think the genesis of gods, the primeval evolution of manvantaric *intelligent* Forces, was being described. But the learned lecturer adds something still more suggestive to his descriptive remarks; whether consciously or unconsciously, who knoweth? For he says the following:—

"Until lately such bodies passed muster as elements. They had definite properties, chemical and physical; they had recognised atomic weights. If we take a pure dilute solution of such a body, yttrium for instance, and if we add to it an excess of strong ammonia, we obtain a precipitate which appears perfectly homogeneous. But if instead we add very dilute ammonia in quantity sufficient only to precipitate one-half of the base present, we obtain no immediate precipitate. If we stir up the whole thoroughly so as to insure a uniform mixture of the solution and the ammonia, and set the vessel aside for an hour, carefully excluding dust, we may still find the liquid clear and bright, without any vestige of turbidity. After three or four hours, however, an opalescence will declare itself, and the next morning a precipitate will have appeared. Now let us ask ourselves, What can be the meaning of this phenomenon? The quantity of precipitant added was insufficient to throw down more than half the yttria present, therefore a process akin to selection has been going on for several hours. The precipitation has *evidently not been effected at random*, those molecules of the base being decomposed which happened to come in contact with a corresponding molecule of ammonia, for we have taken care that the liquids should be uniformly mixed, so that one molecule of the original salt would not be more exposed to decomposition

than any other. If, further, we consider the time which elapses before the appearance of a precipitate, we cannot avoid coming to the conclusion that the action which has been going on for the first few hours is of a selective character. The problem is not why a precipitate is produced, but what determines or directs some atoms to fall down and others to remain in solution. Out of the multitude of atoms present, *what power is it that directs each atom to choose the proper path? We may picture to ourselves some directive force passing the atoms one by one in review, selecting one for precipitation and another for solution till all have been adjusted.*"

The italics in the above passage are ours. Well may a man of science ask himself, "What power is it that directs each atom," and what is it that its character should be *selective*? Theists would solve the question by answering "God"; and would solve nothing philosophically. Occultism answers on its own pantheistic grounds, and refers the reader to a subsequent section, "*Gods, Monads, and Atoms.*" The learned lecturer sees in it that which is his chief concern: the finger-posts and the traces of a path which may lead to the discovery, and the full and complete demonstration of an homogeneous element in nature. He remarks:—

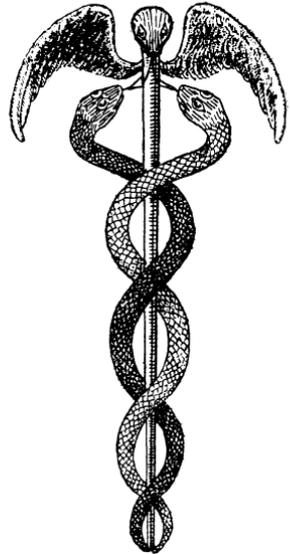
"In order that such a selection can be effected there evidently must be some slight differences between which it is possible to select, and this difference almost certainly must be one of basicity, so slight as to be imperceptible by any test at present known, but susceptible of being nursed and encouraged to a point when the difference can be appreciated by ordinary tests."

Occultism, which knows of the existence and presence in Nature of the One eternal element at the first differentiation of which the roots of the tree of life are periodically struck, needs no scientific proofs. It says:—Ancient Wisdom has solved the problem ages ago. Aye; earnest, as well as mocking reader, Science is slowly but as surely approaching our domains of the Occult. It is forced by its own discoveries to adopt *nolens volens* our phraseology and symbols. Chemical Science is now compelled, by the very force of things, to accept even our illustration of the evolution of the gods and atoms, so suggestively and undeniably figured in the caduceus of Mercury, the God of Wisdom, and in the allegorical language of the Archaic Sages. Says a commentary in the esoteric doctrine:—

. . . *The trunk of the ASVATTHA (the tree of Life and Being, the ROD of the caduceus) grows from and descends at every Beginning (every new manvantara) from the two dark wings of the Swan (HANSA) of Life. The two Serpents, the ever-living and its illusion (Spirit and matter) whose two heads grow from the one head between the wings, descend along the trunk, interlaced in close embrace. The two tails join on earth (the manifested Universe) into one, and this is the great illusion, O Lanoo!"*

Every one knows what the caduceus is, already modified by the Greeks. The original symbol—with the triple head of the serpent—became altered into a rod with a knob, and the two lower heads were separated, thus disfiguring somewhat the original meaning. Yet it is as good an illustration as can be for our purpose, this laya rod entwined by two serpents. Verily the wonderful powers of the magic caduceus were sung by all the ancient poets, with a very good reason for those who understood the secret meaning.

Now what says the learned President of the Chemical Society of Great Britain, in that same lecture, which has any reference to, or bearing upon, our above-mentioned doctrine. Very little; only this—and nothing more:—



“In the Birmingham address already referred to I asked my audience to picture the action of two forces on the original protyle—one being time, accompanied by a lowering of temperature; the other, swinging to and fro like a mighty pendulum, having periodic cycles of ebb and swell, rest and activity, being intimately connected with the imponderable matter, essence, or source of energy we call electricity. Now, a simile like this effects its object if it fixes in the mind the particular fact it is intended to emphasize, but it must not be expected necessarily to run parallel with all the facts. Besides the lowering of temperature with the periodic ebb and flow of electricity, positive or negative, requisite to confer on the newly-born elements their particular atomicity, it is evident that a third factor must be taken into account. Nature does not act on a flat plane; she demands space for her cosmogenic operations, and if we introduce space as the third factor, all appears clear. Instead of a pendulum, which, though to a certain extent a good illustration, is impossible as a fact, let us seek some more satisfactory way of representing what I conceive may have taken place. Let us suppose the zigzag diagram not drawn upon a plane, but projected in space of three dimensions. What figure can we best select to meet all the conditions involved? Many of the facts can be well explained by supposing the projection in space of Professor Emerson Reynolds' zigzag curve to be a spiral. This figure is, however, inadmissible, inasmuch as the curve has to pass through a point neutral as to electricity and chemical energy twice in each cycle. We must, therefore, adopt some other figure. A figure of eight (8), or lemniscate, will fore-shorten into a zigzag just as well as a spiral, and it fulfils every condition of the problem.”

A *lemniscate* for the evolution downward, from Spirit into matter;

another form of a *spiral*, perhaps, in its *reinvolutionary* path onward, from matter into Spirit, and the necessary gradual and final reabsorption into the *laya* state, that which Science calls in her own way "the point neutral as to electricity" etc., or the *zero* point. Such are the Occult facts and statement. They may be left with the greatest security and confidence to Science, to be justified some day. Let us hear some more, however, about this primordial genetic type of the symbolical caduceus.

"Such a figure will result from three very simple simultaneous motions. First, a simple oscillation backwards and forwards (suppose east and west); secondly, a simple oscillation at right angles to the former (suppose north and south) of half the periodic time—*i.e.*, twice as fast; and thirdly, a motion at right angles to these two (suppose downwards), which, in its simplest form, would be with unvarying velocity. If we project this figure in space we find on examination that the points of the curves, where chlorine, bromine, and iodine are formed, come close under each other; so also will sulphur, selenium, and tellurium; again, phosphorus, arsenic, and antimony; and in like manner other series of analagous bodies. It may be asked whether this scheme explains how and why the elements appear in this order? Let us imagine a cyclical translation in space, each evolution witnessing the genesis of the group of elements which I previously represented as produced during one complete vibration of the pendulum. Let us suppose that one cycle has thus been completed, the centre of the unknown creative force in its mighty journey through space having scattered along its track the primitive atoms—the seeds, if I may use the expression—which presently are to coalesce and develop into the groupings now known as lithium, beryllium, boron, carbon, nitrogen, oxygen, fluorine, sodium, magnesium, aluminium, silicon, phosphorus, sulphur, and chlorine. What is most probably the form of track now pursued? Were it strictly confined to the same plane of temperature and time, the next elementary groupings to appear would again have been those of lithium, and the original cycle would have been eternally repeated, producing again and again the same 14 elements. The conditions, however, are not quite the same. Space and electricity are as at first, but temperature has altered, and thus, instead of the atoms of lithium being supplemented with atoms in all respects analogous with themselves, the atomic groupings which come into being when the second cycle commences form, not lithium, but its lineal descendant, potassium. Suppose, therefore, the *vis generatrix* travelling to and fro in cycles along a lemniscate path, as above suggested, while simultaneously temperature is declining and time is flowing on—variations which I have endeavoured to represent by the downward sink—each coil of the lemniscate track crosses the same vertical line at lower and lower points. Projected in space, the curve shows a central line neutral as far as electricity is concerned, and neutral in chemical properties—positive electricity on the north, negative on the south. Dominant atomicities are governed by the distance east and west from the neutral centre line, monatomic elements being one remove from it, diatomic two removes, and so on. In every successive coil the same law holds good."

And, as if to prove the postulate of Occult Science and Hindu philo-

sophy, that, at the hour of the Pralaya, the two *aspects* of the unknowable deity, “the Swan in darkness”—Prakriti and Purusha, nature or matter in all its forms and Spirit—no longer subsist but are (*absolutely*) dissolved,” we learn the conclusive scientific opinion of the great English chemist, who caps his proofs by saying:—“We have now traced the formation of the chemical elements from knots and voids in a primitive, formless fluid. We have shown the possibility, nay, the probability that the atoms are not eternal in existence, but share with all other created beings the attributes of decay and death.”

Occultism says *amen* to this, as the Scientific “possibility” and “probability” are for it facts demonstrated beyond the necessity of further proof or any extraneous physical evidence. Nevertheless, it repeats with as much assurance as ever: “MATTER IS ETERNAL, becoming atomic (its aspect) only periodically.” This is as sure as that the other proposition, which is almost unanimously accepted by astronomers and physicists—namely, that the wear and tear of the body of the Universe is steadily going on, and that it will finally lead to the extinction of the Solar fires and the destruction of the Universe—is quite erroneous on the lines traced by Men of Science. There will be, as there ever were in time and eternity, periodical dissolutions of the manifested Universe, but (*a*) a partial *pralaya* after every “Day of Brahmâ;” and (*b*) an Universal pralaya—the MAHA-PRALAYA—only after the lapse of every Brahmâ’s age. But the scientific causes for such dissolution, as brought forward by exact Science, have nothing to do with the true causes. However that may be, Occultism is once more justified by Science, for Mr. Crookes said:—

“We have shown, from arguments drawn from the chemical laboratory, that in matter which has responded to every test of an element, there are minute shades of difference which may admit of selection. We have seen that the time-honoured distinction between elements and compounds no longer keeps pace with the developments of chemical science, but must be modified to include a vast array of intermediate bodies—“meta-elements.” We have shown how the objections of Clerk-Maxwell, weighty as they are, may be met; and finally, we have adduced reasons for believing that primitive matter was formed by the act of a generative force, throwing off at intervals of time atoms endowed with varying quantities of primitive forms of energy. If we may hazard any conjectures as to the source of energy embodied in a chemical atom, we may, I think, premise that the heat radiations propagated outwards through the ether from the ponderable matter of the universe, by some process of nature not yet known to us, are transformed at the confines of the universe into the primary—the essential—motions of chemical atoms, which, the instant they are formed, gravitate inwards, and thus restore to the universe the energy which otherwise would be lost to it through radiant heat. If this conjecture be well founded, Sir William Thomson’s *startling prediction of the final decrepitude of the universe through the dissipation of its energy falls to the ground*. In this

fashion, gentlemen, it seems to me that the question of the elements may be provisionally treated. Our slender knowledge of these first mysteries is extending steadily, surely, though slowly."

By a strong and curious coincidence even our "septenary" doctrine seems to force the hand of Science. If we understand rightly, Chemistry speaks of fourteen groupings of primitive atoms—lithium, beryllium, boron, carbon, nitrogen, oxygen, fluorine, sodium, magnesium, aluminium, silicon, phosphorus, sulphur and chlorine; and Mr. Crookes, speaking of the "dominant atomicities," enumerates seven groups of these, for he says:—

"As the mighty focus of creative energy goes round, we see it in successive cycles sowing in one tract of space seeds of lithium, potassium, rubidium, and cæsium; in another tract, chlorine, bromine, and iodine; in a third, sodium, copper, silver, and gold; in a fourth, sulphur, selenium, and tellurium; in a fifth, beryllium, calcium, strontium, and barium; in a sixth, magnesium, zinc, cadmium, and mercury; in a seventh, phosphorus, arsenic, antimony, and bismuth"—which makes seven groupings on the one hand. And after showing "in other tracts the other elements—namely, aluminium, gallium, indium, and thallium; silicon, germanium, and tin; carbon, titanium, and zirconium."

He adds: "While a natural position near the neutral axis is found for the three groups of elements relegated by Professor Mendeleeff to a sort of Hospital for Incurables—his eighth family." It might be interesting to compare these "seven of the eighth family of 'incurables' with the allegories concerning the seven primitive sons of "Mother, Infinite Space," or Aditi, and the *eighth* son rejected by her. Many a strange coincidence may thus be found between "those intermediate links . . . named 'meta-elements or elementoids and those whom occult science names their *noumenoi*,' the intelligent minds and rulers of those groupings of Monads and Atoms. But this would lead us too far. Let us be content with finding the confession of the fact that "this deviation from absolute homogeneity should mark the constitution of these molecules or aggregations of matter which we designate elements and will perhaps be clearer if we return in imagination to the earliest dawn of our material universe, and, face to face with the Great Secret, try to consider the processes of elemental evolution." Thus finally Science, in the person of its highest representatives, in order to make itself clearer to the profane, adopts the phraseology of such old adepts as Roger Bacon, and returns to the "protyle." All this is hopeful and suggestive of the "signs of the times."

Indeed these "signs" are many and multiply daily; but none are more important than those just quoted. For now the chasm between the occult "superstitious and *unscientific*" teachings and "exact" science is completely bridged, and one, at least, of the few eminent chemists of the day is in the realm of the infinite possibilities of occultism. Every new

step he will take will bring him nearer and nearer to that mysterious centre, from which radiate the innumerable paths that lead down Spirit into matter, and which transform the gods and the living monads into man and sentient nature.

But we have something more to say on this subject in the following section.

X.

THE COMING FORCE.

ITS POSSIBILITIES AND IMPOSSIBILITIES.

Shall we say that Force is "moving matter," or "matter in motion," and a manifestation of energy; or that matter and force are the phenomenal differentiated aspects of the one primary, undifferentiated Cosmic Substance?

This query is made with regard to that Stanza which treats of FOHAT and his "Seven brothers or Sons," in other words, of the *cause* and the *effects* of Cosmic Electricity, the latter called, in Occult parlance, *the seven primary forces* of Electricity, whose purely phenomenal, and hence *grossest* effects are alone cognizable by physicists on the cosmic and especially on the terrestrial plane. These include, among other things, Sound, Light, Colour, etc., etc. Now what does physical Science tell us of these "Forces"? SOUND, it says, is a *sensation* produced by the impact of atmospheric molecules on the *tympanum*, which, by setting up delicate tremors in the auditory apparatus, thus communicate themselves to the brain. LIGHT is the *sensation* caused by the impact of inconceivably minute vibrations of ether on the *retina* of the eye.

So, too, we say. But this is simply the effect produced in *our* atmosphere and its immediate surroundings, all, in fact, which falls within the range of our terrestrial consciousness. *Jupiter Pluvius* sent his symbol in drops of rain, of water composed, as is believed, of two "elements," which chemistry dissociates and recombines. The compound molecules are in its power, but their atoms still elude its grasp. Occultism sees in all these Forces and manifestations a ladder, the lower rungs of which belong to *exoteric* physics, and the higher are traced to a living, intelligent, invisible Power, which is, as a rule, the unconcerned, and exceptionally, the conscious cause of the sense-born phenomenon designated as this or another natural law.

We say and maintain that SOUND, for one thing, is a tremendous Occult power; that it is a stupendous force, of which the electricity generated by a million of Niagaras could never counteract the smallest potentiality when directed with *occult knowledge*. Sound may be produced of such a nature that the pyramid of Cheops would be raised in the air, or that a dying man, nay, one at his last breath, would be revived and filled with new energy and vigour.

For Sound generates, or rather attracts together, the elements that produce an *ozone*, the fabrication of which is beyond chemistry, but within the limits of Alchemy. It may even *resurrect* a man or an animal whose astral "vital body" has not been irreparably separated from the physical body by the severance of the magnetic or odic chord. *As one saved thrice from death* by that power, the writer ought to be credited with knowing personally something about it.

And if all this appears too *unscientific* to be even noticed, let Science explain "to what mechanical and physical laws known to it, is due the recently produced phenomena of the so-called "Keely motor?" What is it that acts as the formidable generator of invisible but tremendous force, of that power which is not only capable of driving an engine of 25 horse-power, but has even been employed to lift the machinery bodily? Yet this is done simply by drawing a fiddle-bow across a tuning fork, as has been repeatedly proven. For the *etheric Force*, discovered by the well-known (in America and now in Europe) John Worrell Keely, of Philadelphia, is no *hallucination*. Notwithstanding his failure to utilize it, a failure prognosticated and maintained by some Occultists from the first, the phenomena exhibited by the discoverer during the last few years have been wonderful, almost miraculous, not in the sense of the *supernatural** but of the *superhuman*. Had Keely been permitted to succeed, he might have reduced a whole army to atoms in the space of a few seconds as easily as he reduced a dead ox to the same condition.

The reader is now asked to give a serious attention to that newly-discovered potency which the discoverer has named "Inter-Etheric Force and Forces."

In the humble opinion of the Occultists, as of his immediate friends,

* The word "supernatural" implies *above or outside* of nature. Nature and Space are one. Now Space for the metaphysician exists outside of any act of sensation, and is a purely subjective representation; materialism, which would connect it forcibly with one or the other datum of sensation, notwithstanding. For our senses, *it is fairly subjective* when independent of anything within it. How then can any phenomenon, or anything else, *step outside of or be performed beyond that which has no limits?* But when spacial extension becomes simply conceptual, and is thought of in an idea connected with certain actions, as by the materialists and the physicists, then again they have hardly a right to define and claim that which can or cannot be produced by Forces generated within even limited spaces, as they have not even an approximate idea of what those forces are.

Mr. Keely, of Philadelphia, was, and still is, at the threshold of some of the greatest secrets of the Universe; of that chiefly on which is built the whole mystery of the physical Forces, and the esoteric significance of the "Mundane Egg" symbolism. Occult philosophy, viewing the manifested and the unmanifested Kosmos as a UNITY, symbolizes the ideal conception of the former by that "Golden Egg" with two poles in it. It is the positive pole that acts in the manifested world of matter, while the negative is lost in the unknowable absolute-ness of SAT—"Be-ness."* Whether this agrees with the philosophy of Mr. Keely, we cannot tell, nor does it really much matter. Nevertheless, his ideas about the ethero-material construction of the Universe look strangely like our own, being *in this respect* nearly identical. This is what we find him saying in an able pamphlet compiled by Mrs. Bloomfield-Moore, an American lady of wealth and position, whose incessant efforts in the pursuit of truth can never be too highly appreciated:—"Mr. Keely, in explanation of the working of his engine, says: 'In the conception of any machine heretofore constructed, the medium for inducing a neutral centre has never been found. If it had, the difficulties of perpetual-motion seekers would have ended, and this problem would have become an established and operating fact. It would only require an introductory impulse of a few pounds, on such a device, to cause it to run for centuries, In the conception of my vibratory engine, I did not seek to attain perpetual motion; but a circuit is formed that actually has a *neutral centre*, which is in a condition to be vivified by my vibratory ether, and, while under operation by said substance, is really a machine that is virtually independent of the mass (or globe),† and it is the wonderful velocity of the vibratory circuit which makes it so. Still, with all its perfection, it requires to be fed with the vibratory ether to make it an independent motor'"

"All structures require a foundation in strength according to the weight of the mass they have to carry, but the foundations of the universe rest on a vacuous point far more minute than a molecule; in fact, to express this truth properly, on an *inter-etheric point*, which requires an infinite mind to understand it. To look down into the depths of an etheric centre is precisely the same as it would be to search into the broad space of heaven's ether to find the end, with this difference: that one is the positive field, while the other is the negative field"

* "It is not correct, when speaking of *idealism*, to show it based upon "the old ontological assumptions that things or entities exist independently of each other, and otherwise than as terms of relations" (Stallo). At any rate, it is incorrect to say so of idealism in Eastern philosophy and *its* cognition, for it is just the reverse.

† Independent, in a certain sense, but not *disconnected* with it.

This, as easily seen, is precisely the Eastern doctrine. His inter-etheric point is the *laya*-point of the Occultists, which, however, does not require "an infinite mind to *understand* it," but only a specific intuition and ability to trace its hiding-place in this world of matter. Of course, the *laya centre* cannot be produced, but an *inter-etheric vacuum* can—as proved in the production of bell-sounds in space. Mr. Keely speaks as an unconscious Occultist, nevertheless, when he remarks in his theory of planetary suspension:—

"As regards planetary volume, we would ask in a scientific point of view, How can the immense difference of volume in the planets exist without disorganising the harmonious action that has always characterised them? I can only answer this question properly by entering into a progressive analysis, starting on the rotating etheric centres that were fixed by the Creator* with their attractive or accumulative power. If you ask what power it is that gives to each etheric atom its inconceivable velocity of rotation (or introductory impulse), I must answer that no finite mind will ever be able to conceive what it is. The philosophy of accumulation is the only proof that such a power has been given. The area, if we can so speak, of such an atom, presents to the attractive or magnetic, the elective or propulsive, all the receptive force and all the antagonistic force that characterises a planet of the largest magnitude; consequently, as the accumulation goes on, the perfect equation remains the same. When this minute centre has once been fixed, the power to rend it from its position would necessarily have to be so great as to displace the most immense planet that exists. When this atomic neutral centre is displaced, the planet must go with it. The neutral centre carries the full load of any accumulation from the start, and remains the same, for ever balanced in the eternal space."

Mr. Keely illustrates his idea of "a neutral centre" in this way:—

"We will imagine that, after an accumulation of a planet of any diameter, say, 20,000 miles, more or less, for the size has nothing to do with the problem; there should be a displacement of all the material, with the exception of a crust 5,000 miles thick, leaving an intervening void between this crust and a centre of the size of an ordinary billiard ball, it would then require a force as great to move this small central mass as it would to move the shell of 5,000 miles thickness. Moreover, this small central mass would carry the load of this crust for ever, keeping it equidistant; and there could be no opposing power, however great, that could bring them together. The imagination staggers in contemplating the immense load which bears upon this point of centre, where weight ceases. . . . This is what we understand by a neutral centre."

And what Occultists understand by a "laya centre."

The above is pronounced "unscientific" by many. But so is everything that is not sanctioned and kept on strictly orthodox lines by physical science. Unless the explanation given by the inventor himself is accepted—and his explanations, being, as observed, quite *orthodox* from

* "By *Fohat*, more likely," would be an Occultist's reply.

the spiritual and the Occult stand-points, if not from that of materialistic speculative (called *exact*) Science, are therefore ours in this particular—what can science answer to *facts* already seen which it is no longer possible for anyone to deny? Occult philosophy divulges few of its most important vital mysteries. It drops them like precious pearls, one by one, far and wide apart, and only when forced to do so by the evolutionary tidal wave that carries on humanity slowly, silently, but steadily toward the dawn of the Sixth-Race mankind. For once out of the safe custody of their legitimate heirs and keepers, those mysteries cease to be occult: they fall into the public domain and have to run the risk of becoming in the hands of the selfish—of the *Cains* of the human race—curses more often than blessings. Nevertheless, whenever such individuals as the discoverer of *Etheric Force*—John Worrell Keely—men with peculiar psychic and mental capacities* are born, they are generally and more frequently helped than allowed to go unassisted; groping on their way, though, if left to their own resources, falling very soon victims to martyrdom and unscrupulous speculators. Only they are helped *on the condition that they should not become, whether consciously or unconsciously, an additional peril to their age: a danger to the poor*, now offered in daily holocaust by the less wealthy to the very wealthy.† This necessitates a short digression and an explanation.

Some twelve years back, during the Philadelphia Centennial Exhibition, the writer, in answering the earnest queries of a theosophist, one of the earliest admirers of Mr. Keely, repeated to him what she had heard in quarters, information from which she could never doubt.

It had been stated that the inventor of the "Self-Motor" was what is called, in the jargon of the Kabalists, a "*natural-born* magician." That he was and would remain unconscious of the full range of his powers, and would work out merely those which he had found out and ascertained in his own nature—*firstly*, because, attributing them to a wrong source, he could never give them full sway; and

* The reason for such psychic capacities is given farther on.

† The above was written two years ago, at a time when hopes of success for the "Keely Motor" were at their highest. What was then said by the writer proved true, in every word, and now only a few remarks are added to it with regard to the failure of his expectations, so far, which has now been admitted by the discoverer himself. Though, however, the word *failure* is here used the reader should understand it in a relative sense, for as Mrs. Bloomfield-Moore explains: "What Mr. Keely does admit is that, baffled in applying vibratory force to mechanics, upon his first and second lines of experimental research, he was obliged either to confess a *commercial* failure, or to try a third departure from his base or principle; seeking success through another channel."
 . . . And this "channel" is on the *physical* plane.

secondly, because it was beyond his power to pass to others that which was a *capacity inherent in his special nature*. Hence the whole secret could not be made over permanently to anyone for practical purposes or use.*

Individuals born with such a capacity are not *very rare*. That they are not heard of more frequently is due to the fact that they live and die, in almost every case, in utter ignorance of being possessed of *abnormal* powers at all. Mr. Keely possesses powers which are called "abnormal" just because they happen in our day to be as little known as blood circulation was before Harvey's time. Blood existed, and it behaved as it does at present in the first man born from woman; and so does that *principle* in man which can control and guide etheric vibratory force. At any rate it exists in all those mortals whose *inner selves* are *primordially connected, by reason of their direct descent, with that group of Dhyanchohans* who are called "*the first-born of Ether*." Mankind, psychically considered, is divided into various groups, each of which is connected with one of the Dhyanic groups that first formed *psychic* man; (*see paragraphs 1, 2, 3, 4, 5 in the Commentary to Stanza VII.*) Mr. Keely being greatly favoured in this respect, and moreover, besides his psychic temperament, being intellectually a genius in mechanics, may thus achieve most wonderful results. He has achieved some already—more than any mortal man, *not initiated into the final mysteries*, has achieved in this age up to the present day. What he has done is certainly quite sufficient "to demolish with the hammer of Science the idols of Science"—the idols of matter with the feet of clay—as his friends justly predict and say of him. Nor would the writer for a moment think of contradicting Mrs. Bloomfield-Moore, when in her paper on "Psychic Force and Etheric Force," she states that Mr. Keely, as a philosopher, "is great enough in soul, wise enough in mind, and sublime enough in courage to overcome all difficulties, and to stand at last before the world as the greatest discoverer and inventor in the world."

And again she writes:—"Should Keely do no more than lead scientists from the dreary realms where they are groping into the open field of elemental force, where gravity and cohesion are disturbed in their haunts and diverted to use; where, from unity of origin, emanates infinite energy in diversified forms, he will achieve immortal fame. Should he demonstrate, to the destruction of materialism, that the universe is animated by a mysterious principle to which matter, however perfectly organized, is absolutely subservient, he will be a greater spiritual benefactor to our race than the modern world has yet found in any man. Should he be able to substitute, in the treatment of disease,

* We learn that these remarks are not applicable to Mr. Keely's latest discovery; time alone can show the exact limit of his achievements.

the finer forces of nature for the grossly material agencies which have sent more human beings to their graves than war, pestilence and famine combined, he will merit and receive the gratitude of mankind. All this and more will he do, if he and those who have watched his progress, day by day for years, are not too sanguine in their expectations."

Writing in the T. P. S. ("Theosophical Publication Society") series (No. 9), the same lady, in her pamphlet, "Keely's Secrets," brings forward a passage from an article, written a few years ago by the writer of the present volume, in her journal, the *Theosophist*, in these words:—

"The author of No. 5 of the pamphlets issued by the Theosophical Publication Society, 'What is Matter and What is Force,' says therein, 'The men of science have just found out "a fourth state of matter," whereas the Occultists have penetrated years ago beyond the sixth, and therefore do not infer, but know of, the existence of the seventh, the last.' This knowledge comprises one of the secrets of Keely's so-called 'compound secret.' It is already known to many that his secret includes 'the augmentation of energy,' the insulation of the ether, and the adaptation of dynaspheric force to machinery."

It is just because Keely's discovery would lead to a knowledge of one of the most occult secrets, a secret which can never be allowed to fall into the hands of the masses, that his failure to push his discoveries to their logical end seems certain to Occultists. But of this more presently. Even in its limitations this discovery may prove of the greatest benefit. For:—

"Step by step, with a patient perseverance which some day the world will honour, this man of genius has made his researches, overcoming the colossal difficulties which again and again raised up in his path what seemed to be (to all but himself) insurmountable barriers to further progress: but never has the world's index finger so pointed to an hour when all is making ready for the advent of the new form of force that mankind is waiting for. Nature, always reluctant to yield her secrets, is listening to the demands made upon her by her master, necessity, The coal mines of the world cannot long afford the increasing drain made upon them. Steam has reached its utmost limits of power, and does not fulfil the requirements of the age. It knows that its days are numbered. Electricity holds back, with bated breath, dependent upon the approach of her sister colleague. Air ships are riding at anchor, as it were, waiting for the force which is to make aërial navigation something more than a dream. As easily as men communicate with their offices from their homes by means of the telephone, so will the inhabitants of separate continents talk across the ocean. Imagination is palsied when seeking to foresee the grand results of this marvellous discovery, when once it is applied to art and mechanics. In taking the throne which it will force steam to abdicate, dynaspheric force will rule the world with a power so mighty in the interests of civilization, that no finite mind can conjecture the results. Laurence Oliphant, in his preface to 'Scientific Religion,' says: 'A new moral future is dawning upon the human race—one, certainly, of which it stands much in need.' In no way could this

new moral future be so widely, so universally, commenced as by the utilizing of dynaspheric force to beneficial purposes in life. . . .”

The Occultists are ready to admit all this with the eloquent writer. Molecular vibration is, undeniably, “Keely’s legitimate field of research,” and the discoveries made by him will prove wonderful—yet *only in his hands and through himself*. The world so far will get but that with which it can be safely entrusted. The truth of this assertion has, perhaps, not yet quite dawned upon the discoverer himself, since he writes that he is absolutely certain that he will accomplish all that he has promised, and will then give it out to the world; but it must dawn upon him, and at no very far distant date. And what he says in reference to his work is a good proof it:—

“In considering the operation of my engine, the visitor, in order to have even an approximate conception of its *modus operandi*, must discard *all thought of engines that are operated upon the principle of pressure and exhaustion, by the expansion of steam or other analogous gas which impinges upon an abutment, such as the piston of a steam-engine*. My engine has neither piston nor eccentrics, nor is there one grain of pressure exerted in the engine, whatever may be the size or capacity of it.

“My system, in every part and detail, both in the developing of my power and in every branch of its utilization, *is based and founded on sympathetic vibration*. In no other way would it be possible to awaken or develop my force, and equally impossible would it be to operate my engine upon any other principle. . . . This, however, is the true system; and henceforth all my operations will be conducted in this manner—that is to say, my power will be generated, my engines run, my cannon operated, *through a wire*.

“It has been only after years of incessant labour, and the making of almost innumerable experiments, involving not only the construction of a great many most peculiar mechanical structures, and the closest investigation and study of the phenomenal properties of the substance ‘ether,’ *per se*, produced, that I have been able to dispense with complicated mechanism, and to obtain, as I claim, *mastery over the subtle and strange force with which I am dealing*.”

The passages underlined by us, are those which bear directly on the occult side of the application of the vibratory force, or what Mr. Keely calls “sympathetic vibration.” The “wire” is already a step below, or downward from the pure etheric plane into the terrestrial. The discoverer has produced marvels—the word “miracle” is not too strong—when acting through the inter-etheric Force alone, the fifth and sixth principles of Akâsa. From a “generator” six feet long, he has come down to one “no larger than an old-fashioned silver watch;” and this by itself is a miracle of *mechanical* (but not spiritual) genius. But, as well expressed by his great patroness and defender, Mrs. Bloomfield-Moore, “the two forms of force which he has been experimenting with, and the phenomena attending them, are the very antithesis of each other.” One was generated and acted upon by and

through himself. No one, who should have repeated the thing done by himself, *could have produced the same results.* It was “Keely’s ether” that acted truly, while “Smith’s or Brown’s” ether would have remained for ever barren of results. For Keely’s difficulty has hitherto been to produce a machine which would develop and regulate the “force” without the intervention of any “will power” or personal influence, whether conscious or unconscious of the operator. In this he has failed, so far as others were concerned, for *no one but himself* could operate on his “machines.” Occultly this was a far more advanced achievement than the “success” which he anticipates from his “wire,” but the results obtained from the *fifth and sixth planes* of the etheric (or Astral) Force, *will never be permitted to serve for purposes of commerce and traffic.* That Keely’s organism is directly connected with the production of the marvellous results is proven by the following statement emanating from one who knows the great discoverer intimately.

At one time the shareholders of the “Keely Motor Co.” put a man in his workshop for the express purpose of discovering his secret. After six months of close watching, he said to J. W. Keely one day: “I know how it is done, now.” They had been setting up a machine together, and Keely was manipulating the stop-cock which turned the force on and off. “Try it, then,” was the answer. The man turned the cock, and nothing came. “Let me see you do it again,” the man said to Keely. The latter complied, and the machinery operated at once. Again the other tried, but without success. Then Keely put his hand on his shoulder and told him to try once more. He did so, with the result of an instantaneous production of the current. This fact, if true, settles the question.

We are told that Mr. Keely defines electricity “as a certain form of atomic vibration.” In this he is quite right; but this is electricity on the terrestrial plane, and through terrestrial correlations. He estimates—

Molecular vibrations at	100,000,000	per second.
Inter-molecular	“ “ 300,000,000	“ “
Atomic	“ “ 900,000,000	“ “
Inter-atomic	“ “ 2,700,000,000	“ “
Ætheric	“ “ 8,100,000,000	“ “
Inter-Ætheric	“ “ 24,300,000,000	“ “

This proves our point. There are no vibrations that could be counted or even estimated at an *approximate* rate beyond “the realm of the *fourth son of Fohat,*” using an occult phraseology, or that motion which corresponds to the formation of Mr. Crookes’ radiant matter, or lightly called some years ago the “fourth state of matter”—*on this our plane.*

If the question is asked why Mr. Keely was not allowed to pass a certain limit, the answer is easy; because that which he has unconsciously discovered, is the terrible sidereal Force, known to, and named by the Atlanteans MASH-MAK, and by the Aryan Rishis in their *Ashtar Vidya* by a name that we do not like to give. It is the *vril* of Bulwer Lytton's "Coming Race," and of the coming races of our mankind. The name *vril* may be a fiction; the Force itself is a fact doubted as little in India as the existence itself of their Rishis, since it is mentioned in all the secret works.

It is this vibratory Force, which, when aimed at an army from an *Agni Rath* fixed on a flying vessel, a balloon, according to the instructions found in *Ashtar Vidya*, reduced to ashes 100,000 men and elephants, as easily as it would a dead rat. It is allegorised in the *Vishnu Purâna*, in the Râmâyana and other works, in the fable about the sage Kapila whose *glance* made a mountain of ashes of King Sagara's 60,000 sons," and which is explained in the esoteric works, and referred to as the *Kapilaksha*—"Kapila's Eye."

And is it this Satanic Force that our generations were to be allowed to add to their stock of Anarchist's baby-toys, known as melenite, dynamite clock-works, explosive oranges, "flower baskets," and such other innocent names? Is it this destructive agency, which, once in the hands of some modern Attila, *e.g.*, a blood-thirsty anarchist, would reduce Europe in a few days to its primitive chaotic state with no man left alive to tell the tale—is this force to become the common property of all men alike?

What Mr. Keely has already done is grand and wonderful in the extreme; there is enough work before him in the demonstration of his new system to "humble the pride of those scientists who are materialistic, by revealing those mysteries which lie behind the world of matter," without revealing it *volens volens* to all. For surely Psychists and Spiritualists—of whom there are a good number in the European armies—would be the first to experience personally the fruits of such mysteries revealed. Thousands of them would find themselves (and perhaps with the populations of whole countries to keep them company) in blue Ether very soon, were such a Force to be even entirely discovered, let alone made publicly known. The discovery in its completeness is by several thousand—or shall we say hundred thousand?—years *too premature*. It will be at its appointed place and time only when the great roaring flood of starvation, misery, and underpaid labour ebbs back again—as it will when happily at last the just demands of the many are attended to; when the proletariat exists but in name, and the pitiful cry for bread, that rings throughout the world unheeded, has died away. This may be hastened by the spread of learning,

and by new openings for work and emigration, with better prospects than exist now, *and on some new continent that may appear*. Then only will "Keely's Motor and Force," as *originally contemplated* by himself and friends, be in demand, because *it will be more needed by the poor than by the wealthy*.

Meanwhile the force discovered by him will work through *wires*, and this, if he succeeds, will be quite sufficient in the present generation to make of him the greatest discoverer of this age.

What Mr. Keely says of *Sound and Colour* is also correct from the Occult stand-point. Hear him talk as though he were the nursling of the "Gods-revealers," and had gazed all his life into the depths of Father-Mother Æther.

In comparing the tenuity of the atmosphere with that of the etheric flows, obtained by him from his invention for breaking up the molecules of air by vibration, Keely says that:—

. . . "It is as platina to hydrogen gas. Molecular separation of air brings us to the first sub-division only; inter-molecular, to the second; atomic, to the third; inter-atomic, to the fourth; etheric, to the fifth; and inter-etheric, to the sixth sub-division, or positive association with luminiferous ether.* In my introductory argument I have contended that this is the vibratory envelope of all atoms. In my definition of atom I do not confine myself to the *sixth* sub-division where this luminiferous ether is developed in its crude form as far as my researches prove.† I think this idea will be pronounced by the physicists of the present day, a wild freak of the imagination. Possibly, in time, a light may fall upon this theory that will bring its simplicity forward for scientific research. At present I can only compare it to some planet in a dark space, where the light of the sun of science has not yet reached it. . ."

"I assume that sound, like odour, is a real substance of unknown and wonderful tenuity, emanating from a body where it has been induced by percussion and throwing out absolute corpuscles of matter, inter-atomic particles, with velocity of 1,120 feet per second; in vacuo 20,000. The substance which is thus disseminated is a part and parcel of the mass agitated, and, if kept under this agitation continuously, would, in the course of a certain cycle of time, become thoroughly absorbed by the atmosphere; or, more truly, would pass through the atmosphere to an elevated point of tenuity corresponding to the condition of sub-division that governs its liberation from its parent body." . . .

"The sounds from vibratory forks, set so as to produce etheric chords, while disseminating their tones (compound), permeate most thoroughly all substances that come under the range of their atomic bombardment. The clapping of a bell *in vacuo* liberates these atoms with the same velocity and volume as one in the open air; and were the agitation of the bell kept up continuously for a few millions of centuries it would

* This also is the division, made by the Occultists, under other names.

† Quite so, since there is the *seventh* beyond, which begins the same enumeration from the first to the last, on another and higher plane.

thoroughly return to its primitive element; and, if the chamber were hermetically sealed, and strong enough, the vacuous volume surrounding the bell would be brought to a pressure of many thousands of pounds to the square inch, by the tenuous substance evolved. In my estimation, sound truly defined is the disturbance of atomic equilibrium, rupturing actual atomic corpuscles; and the substance thus liberated must certainly be a certain order of etheric flow. Under these conditions, is it unreasonable to suppose that, if this flow were kept up, and the body thus robbed of its element, it would in time disappear entirely? All bodies are formed primitively from this highly tenuous ether, animal, vegetable, and mineral, and they are only returned to their high gaseous condition when brought under a state of differential equilibrium." . . .

"As regards odour, we can only get some definite idea of its extreme and wondrous tenuity by taking into consideration that a large area of atmosphere can be impregnated for a long series of years from a single grain of musk; which, if weighed after that long interval, will be found to be not appreciably diminished. The great paradox attending the flow of odorous particles is that they can be held under confinement in a glass vessel! Here is a substance of much higher tenuity than the glass that holds it, and yet it cannot escape. It is as a sieve with its meshes large enough to pass marbles, and yet holding fine sand which cannot pass through; in fact, a molecular vessel holding an atomic substance. This is a problem that would confound those who stop to recognize it. But infinitely tenuous as odour is, it holds a very crude relation to the substance of sub-division that governs a magnetic flow (a flow of sympathy, if you please to call it so). This sub-division comes next to sound, but is above sound. The action of the flow of a magnet coincides somewhat to the receiving and distributing portion of the human brain, giving off at all times a depreciating ratio of the amount received. It is a grand illustration of the control of mind over matter, which gradually depreciates the physical till dissolution takes place. The magnet on the same ratio gradually loses its power and becomes inert. If the relations that exist between mind and matter could be equated and so held, we would live on in our physical state eternally, as there would be no physical depreciation. But this physical depreciation leads, at its terminus, to the source of a much higher development—viz., the liberation of the pure ether from the crude molecular; which, in my estimation, is to be much desired." —(From Mrs. Bloomfield-Moore's paper, "*The New Philosophy*.")

It may be remarked that, save a few small divergencies, no Adept nor Alchemist could have explained the above *any better, in the light of modern Science*, however much the latter may protest against the novel views. This is, in all its fundamental principles, if not details, *Occultism pure and simple*, yet withal, modern *natural philosophy* as well.

This "New Force," or whatever Science may call it, the effects of which are undeniable—admitted by more than one naturalist and physicist who has visited Mr. Keely's laboratory and witnessed personally its tremendous effects—what is it? Is it a "mode of motion," also, "*in Vacuo*," since there is no matter to generate it except *Sound*—another "mode of motion," no doubt, a *sensation* caused like

colour by vibrations? Fully as we believe in these vibrations as the proximate—the immediate—cause of such sensations, we as absolutely reject the one-sided scientific theory that there is *no factor* to be considered as external to us, other than etheric or atmospheric vibrations.*

There is a *transcendental* set of causes put in motion—so to speak—in the occurrence of these phenomena, which, *not being in relation to our narrow range of cognition*, can only be traced to their source and their nature, and understood by the Spiritual faculties of the Adept. They are, as Asclepios puts it to the King, “incorporeal corporealities”—such as “appear in the mirror,” and “abstract forms” that *we see, hear, and smell*, in our dreams, and visions. What have the “modes of motion,” light, and ether to do with these? Yet we see, hear, and smell, and touch them, *ergo* they are as much *realities* to us in our dreams, as any other thing on this plane of Maya.

XI.

ON THE ELEMENTS AND ATOMS,

FROM THE STAND-POINT OF SCIENCE AND THAT OF OCCULTISM.

WHEN the Occultist speaks of “Elements,” and of human Beings who lived during those geological ages, the duration of which it is found as impossible to determine, according to the opinion of one of the best

* In this case the American “Substantialists” are not wrong (though too anthropomorphic and material in their views to be accepted by the Occultists) when arguing through Mrs. M. S. Organ, M.D., that “there must be positive entitative properties in objects which have a constitutional relation to the nerves of animal sensations, or there can be no perception. No impression of *any kind can be made* upon brain, nerve, or mind—no stimulus to action—unless there is an actual and direct communication of a substantial force.” (“Substantial” as far as it appears in the usual sense of the word in this universe of *illusion* and *MAYA*, of course; not so *in reality*.) “That force may be the most refined and sublimated immaterial Entity (?). Yet it must exist; for no sense, element, or faculty of the human being can have a perception, or be stimulated into action, without some substantial force coming in contact with it. This is the fundamental law pervading the whole organic and mental world. In the true philosophical sense there is no such thing as independent action: for every force or substance is correlated to some other force or substance. We can with just as much truth and reason assert that no substance possesses any inherent gustatory property or any olfactory property—that taste and odour are simply sensations caused by vibrations; and hence mere illusions of animal perceptions. . . .”

English geologists*, as the nature of matter, it is because he knows what he is talking about. When he says "Man" and Elements, he neither means "man" in his present physiological and anthropological form, nor the elemental atoms, those hypothetical conceptions, the entitative abstractions of matter in its highly attenuated state, as existing at present in scientific minds; nor, again, the compound Elements of antiquity. In Occultism the word *Element* means "rudiment" in every case. When we say "Elementary Man," we mean either the proëmil, incipient sketch of man, in its unfinished and undeveloped condition, hence in that form which now lies latent in physical man during his life-time, and takes shape only occasionally and under certain conditions; or that form which for a time survives the material body, and which is better known as an "Elementary."† With regard to "Element," when the term is used metaphysically, it means, in distinction to the mortal, the incipient *divine* man; and, in its physical usage, inchoate matter in its first undifferentiated condition, or in the *laya* state, which is the eternal and the *normal* condition of substance, differentiating only periodically, and is during that differentiation in an *abnormal* state—in other words, a transitory illusion of the senses.

As to the "elemental atoms," so called, the Occultists refer to them by that name with a meaning analogous to that which is given by the Hindu to Brahmâ when he calls him ANU, the "Atom." Every elemental *atom*, in search of which more than one Chemist has followed the path indicated by the Alchemists, is, in their firm belief (when not *knowledge*), a SOUL; not necessarily a disembodied soul, but a *jiva*, as the Hindus call it, a centre of POTENTIAL VITALITY, with latent intelligence in it, and, in the case of compound Souls—an intelligent active EXISTENCE, from the highest to the lowest order, a form composed of more or less differentiations. It requires a metaphysician—and an Eastern metaphysician—to understand our meaning. All those atom-Souls are differentiations from the ONE, and in the same relation to it as the *divine Soul*—the Buddhi—to its informing and inseparable Spirit, or *Atman*.

Modern physics, while borrowing from the ancients their atomic theory, forgot one point, the most important of the doctrine; hence they got only the husks and will never be able to get at the kernel. They left behind, in the adoption of physical atoms, the suggestive fact that

* In answer to a friend, that eminent geologist writes: . . . "I can only say, in reply to your letter, that it is at present, and perhaps always will be, IMPOSSIBLE to reduce, even approximately, geological time into years, or even into millenniums." (Signed William Pengelly, F.R.S.)

† Plato speaking of the irrational, turbulent Elements "composed of fire, air, water, and earth," means Elementary Dæmons. (See *Timæus*.)

from Anaxagoras down to Epicurus, the Roman Lucretius, and finally even to Galileo, all those Philosophers believed more or less in ANIMATED atoms, not in invisible specks of so-called "brute" matter. Rotatory motion was generated in their views, by larger (read, more divine and pure) atoms forcing downwards other atoms; the lighter ones being thrust simultaneously upward. The esoteric meaning of this is the ever cyclic curve downward and upward of differentiated elements through intercyclic phases of existence, until each reaches again its starting point or birthplace. The idea was metaphysical as well as physical; the hidden interpretation embracing "gods" or souls, in the shape of atoms, as the *causes* of all the *effects* produced on Earth by the *secretions* from the divine bodies.* No ancient philosopher, not even the Jewish Kabalists, ever dissociated Spirit from matter or *vice versâ*. Everything originated in the ONE, and, proceeding from the one, must finally return to the One. "Light becomes heat, and consolidates into fiery particles; which, from being ignited, become cold, hard particles, round and smooth. And this is called *Soul*, imprisoned in its robe of matter;" † *Atoms* and *Souls* having been synonymous in the language of the Initiates. The "whirling Souls," *Gilgoolem*, a doctrine in which so many learned Jews have believed (*See Mackenzie's Royal Masonic Cyclopædia*), had no other meaning esoterically. The learned Jewish Initiates never meant by the "Promised land" Palestine alone, but the same *Nirvana* as the learned Buddhist and Brahmin do—the bosom of the ETERNAL ONE, symbolized by that of Abraham, and by Palestine as its substitute on Earth.‡ The passage of the SOUL-ATOM "through the Seven Planetary Chambers" had the same metaphysical and also physical meaning. It had the latter when it was said to *dissolve into Ether* (*See Isis Unveiled*, Vol. I., p. 297.) Even Epicurus, the *model Atheist* and materialist, knew and believed so much in the ancient Wisdom, that he taught that the

* Plato uses the words "secretions" of turbulent Elements (*Timæus*).

† Valentinus' *Esoteric Treatise on the Doctrine of Gilgul*.

‡ Surely no educated Jew ever believed the *literal* sense of this allegory—namely, that "the bodies of Jews deposited in foreign lands contain within them a principle of Soul which cannot rest, until by a process called the "whirling of the Soul" the immortal particle reaches once more the sacred Soil of the "Promised land." The meaning is evident to an occultist. The process was supposed to be accomplished by a kind of metempsychosis, the psychic spark being conveyed through bird, beast, fish, and the most minute insect. (*See Royal Masonic Cyclo. Mackenzie.*) The Allegory relates to the *atoms of the body*, which have each to pass through every form before all reach the *final state*, which is the first starting point of the departure of every atom—its primitive *aya State*. But the primitive meaning of *Gilgoolem*, or "Revolution of Souls," was the idea of the re-incarnating Souls or *Egos*. "All the Souls go into the *gilgoolah*," into a cyclic or revolving process; *i.e.*, they all proceed on the cyclic path of re-births. Some Kabalists interpret this doctrine to mean only a kind of purgatory for the souls of the wicked. But this is not so.

Soul (entirely distinct from immortal Spirit when the former is enshrined *latent* in it, as it is in every atomic speck), was composed of a fine, tender essence, formed from the *smoothest, roundest, and finest atoms*.

And this shows that the ancient Initiates, who were followed more or less closely by all profane antiquity, meant by the term "ATOM," a Soul, a Genius or Angel, the first-born of the ever-concealed CAUSE of all causes; and in this sense their teachings become comprehensible. They claimed, as do their successors, the existence of Gods and Genii, angels or "demons," not outside, or independent of, the Universal *Plenum*, but within it. Only this *Plenum*, during the life-cycles, is infinite. They admitted and taught a good deal of that which modern Science teaches now—namely, the existence of a primordial "World-stuff or Cosmic Substance," from which worlds are formed, ever and eternally homogeneous, except during its periodic existence, when it differentiates its universal diffusion throughout infinite space; and the gradual formation of sidereal bodies from it. They taught the revolution of the Heavens, the Earth's rotation, the Heliocentric System, and the Atomic Vortices—Atoms—in reality Souls and intelligences. But those "Atomists" were spiritual, most transcendental, and philosophical Pantheists. It is not they who would have ever conceived, or dreamt that monstrous contrasted progeny, the nightmare of our modern civilized Race; namely—*inanimate* material, self-guiding atoms, on the one hand, and an extra-Cosmic God on the other.

It may be useful to show what, in the teachings of the old Initiates, the Monad was, and what its origin.

Modern exact Science, as soon as it began to grow out of its teens, perceived the great, and, to it, hitherto *esoteric* axiom, that nothing—whether in the spiritual, psychic, or physical realm of being—could come into existence out of nothing. There is no cause in the manifested universe without its adequate effects, whether in space or time; nor can there be an effect without its primal cause, which itself owes its existence to a still higher one—the final and absolute cause having to remain to man for ever an incomprehensible CAUSELESS CAUSE. But even this is no solution, and must be viewed, if at all, from the highest philosophical and metaphysical standpoints, otherwise the problem had better be left unapproached. It is an abstraction, on the verge of which human reason—however trained to metaphysical subtleties—trembles, threatening to collapse. This may be demonstrated to any European who would undertake to solve the problem of existence by the articles of faith of the true Vedantin, for instance. Let him read and study the sublime teachings on the subject of Soul and Spirit, of

Sankarâchârya (*Viveka Chudâmani*)*, and the reader will realize what is now said.

While the Christian is taught that the human soul is a breath of God—being created by him for sempiternal existence, *i.e.*, having a beginning, *but no end* (and therefore never to be called eternal)—the Occult teaching says, “*Nothing is created, but is only transformed.* Nothing can manifest itself in this universe—from a globe down to a vague, rapid thought—that was not in the universe already; everything on the subjective plane is an eternal is; as everything on the objective plane is an *ever becoming*—because transitory.”

The monad—a truly “indivisible thing,” as defined by Good, who did not give it the sense we now do—is here rendered as the *Atma* in conjunction with *Buddhi* and the higher *Manas*. This trinity is one and eternal, the latter being absorbed in the former at the termination of all conditioned and *illusivelife*. The monad, then, can be traced through the course of its pilgrimage and its changes of transitory vehicles only from the incipient stage of the manifested Universe. In *Pralaya*, or the intermediate period between two *manvantaras*, it loses its name, as it loses it when the real ONE self of man merges *into Brahm* in cases of high *Samadhi* (the *Turiya* state) or final *Nirvana*; “when the disciple” in the words of Sankara, “having attained that primeval consciousness, absolute bliss, of which the nature is truth, which is without form and action, abandons this illusive body that has been assumed by the *atma* just as an actor (abandons) the dress (put on).” For *Buddhi* (the *Anandamaya sheath*) is but a mirror which *reflects* absolute bliss; and, moreover, *that reflection* itself is yet not free from ignorance, and is *not* the Supreme Spirit, being subject to conditions, being a spiritual modification of *Prakriti*, and an effect; *Atma* alone is the one real and eternal substratum of all—the essence and absolute knowledge—the *Kshetragna*.† It is called in the Esoteric philosophy “the One Witness,”

* Translated for the *Theosophist*, by Mohini M. Chatterji as “Crest Jewel of Wisdom,” 1886. (See *Theosophist*, July and August numbers).

† Now that the revised version of the gospels has been published and the most glaring mistranslations of the old versions are corrected, one will understand better the words in St. John v., vi., and vii.: “It is the Spirit that beareth *witness* because the Spirit is the truth.” The words that follow in the mistranslated version about the “three witnesses,”—hitherto supposed to stand for “the Father, the Word, and the Holy Ghost”—show the real meaning of the writer (St. John) very clearly, thus still more forcibly identifying his teaching in this respect with that of Sankarâchârya. For what can the sentence, “there are three who bear witness: the Spirit and the *Water* and the *Blood*”—mean, if they bear no relation to, or connection with, the more philosophical statement of the great Vedanta teacher, who, speaking of the *sheaths* (the *principles* in man) *Jiva*, *Vignanamaya*, etc., which *are*, in their physical manifestation, “*water and blood*” or life, adds that *atma* (spirit) alone is what remains after the

and, while it rests in Devachan, is referred to as “the Three Witnesses to Karma.”

Atma (our seventh principle) being identical with the universal Spirit, and man being one with it in his essence, what is then the Monad proper? It is that homogeneous spark which radiates in millions of rays from the primeval “Seven;”—of which seven further on. It is *the EMANATING spark from the UNCREATED Ray*—a mystery. In the esoteric, and even exoteric Buddhism of the North, Adi Buddha (*Chogi dangpoi sangye*), the One unknown, without beginning or end, identical with Parabrahm and Ain-Soph, emits a bright ray from its darkness.

This is the *Logos* (the first), or Vajradhara, the Supreme Buddha (also called *Dorjechang*). As the Lord of all Mysteries he cannot manifest, but sends into the world of manifestation his heart—the “diamond heart,” Vajrasattva (*Dorjesempa*). This is the second *logos* of creation, from whom emanate the seven (in the exoteric blind the five) Dhyani Buddhas, called the Anupadaka, “the parentless.” These Buddhas are the primeval monads from the world of *incorporeal being*, the *Arupa* world, wherein the Intelligences (on that plane only) have neither shape nor name, in the exoteric system, but have their distinct seven names in esoteric philosophy. These Dhyani Buddhas emanate, or create from themselves, by virtue of Dhyana, celestial Selves—the *super-human* Bodhisattvas. These incarnating at the beginning of every human cycle on earth as mortal men, become occasionally, owing to their personal merit, Bodhisattvas among the Sons of Humanity, after which they may re-appear as *Manushi* (human) Buddhas. The Anupadaka (or Dhyani-Buddhas) are thus identical with the Brahminical *Manasaputra*, “mind-born sons”—whether of Brahmâ or either of the other two Trimurtian Hypostases, hence identical also with the Rishis and Prajâpatis. Thus, a passage is found in *Anugîtâ*, which, read esoterically, shows plainly, though under another imagery, the same idea and system. It says: “Whatever entities there are in this world, moveable or immovable, they are the very first to be dissolved (at *pralaya*); and next the developments produced from the elements (from which the visible Universe is fashioned); and, after these developments (evolved entities), all the elements. Such is the upperward gradation among entities. Gods, Men, Gandharvas, Pisâchas, Asuras, Râkshasas, all have been created by Svabhâva (Prakriti, or plastic nature), not by actions, nor by a cause”—*i.e.*, not by any physical cause.

“These Brâhmanas (the Rishi Prajâpati?), the creators of the world, are born here (on earth) again and again. Whatever is produced from

subtraction of the sheaths and that it is the *ONLY witness*, or synthesized unity. The less spiritual and philosophical school, solely with an eye to a trinity made three witnesses out of “one,” thus connecting it more with earth than with heaven.

them is dissolved in due time in those very five great elements (the five, or rather seven, Dhyani Buddhas, also called "Elements" of Mankind), like billows in the ocean. These great elements are in every way beyond the elements that make up the world (the gross elements). And he who is released even from these five elements (the *tanmâtras*)* goes to the highest goal." "The Lord Prajâpati (Brahmâ) created all this by the mind only," *i.e.*, by *Dhyana*, or abstract meditation and mystic powers like the Dhyani Buddhas (*vide supra*). Evidently then, these "Brâhmanas" are identical with the Bodhisattvas (the terrestrial) of the heavenly Dhyani Buddhas. Both, as primordial, intelligent "Elements," become the *creators* or the *emanators* of the monads destined to become human in that cycle; after which they evolve themselves, or, so to say, expand into their own *selves* as Bodhisattvas or Brâhmanas, in heaven and earth, to become at last simple men—"the creators of the world *are born here, on earth again and again*"—truly. In the Northern Buddhist system, or the popular exoteric religion, it is taught that every Buddha, while preaching the good law on earth, manifests himself simultaneously in three worlds: in the formless, as Dhyani Buddha, in the World of forms, as a Bodhisattva, and in the world of desire, the lowest (or our world) as a man. Esoterically the teaching differs: The divine, purely Adi-Buddhic *monad* manifests as the universal Buddhi (the *Mahâ-buddhi* or Mahat in Hindu philosophies) the spiritual, omniscient and omnipotent root of divine intelligence, the highest *anima mundi* or the Logos. *This* descends "like a flame spreading from the eternal Fire, immoveable, without increase or decrease, ever the same to the end" of the cycle of existence, and becomes universal life on the Mundane Plane. From this Plane of *conscious* Life shoot out, like seven fiery tongues, the Sons of Light (the *logoi* of Life); then the Dhyani-Buddhas of contemplation: the concrete forms of their formless Fathers—the Seven Sons of Light, *still themselves*, to whom may be applied the Brahmanical mystic phrase: "Thou art 'THAT'—*Brahm.*" It is from these Dhyani-Buddhas that emanate their *chhayas* (Shadows) the Bodhisattvas of the celestial realms, the prototypes of the *super-terrestrial* Bodhisattvas, and of the terrestrial Buddhas, and finally of men. The "Seven Sons of Light" are also called "Stars."

The star under which a human Entity is born, says the Occult teaching, will remain for ever its star, throughout the whole cycle of its incarnations in one Manvantara. But *this is not his astrological star*. The latter is concerned and connected with the *personality*, the former with

* The *Tanmâtras* are literally the type or rudiment of an element devoid of qualities; but esoterically, they are the primeval *noumenoi* of that which becomes in the progress of evolution a Cosmic element in the sense given to the term in antiquity, not in that of physics. They are the *logoi*, the seven emanations or rays of the logos.

the INDIVIDUALITY. The "Angel" of that Star, or the Dhyani-Buddha will be either the guiding or simply the presiding "Angel," so to say, in every new rebirth of the monad, *which is part of his own essence*, through his vehicle, man, may remain for ever ignorant of this fact. The adepts have each their Dhyani-Buddha, their elder "twin Soul," and they know it, calling it "Father-Soul," and "Father-Fire." It is only at the last and supreme initiation, however, that they learn it when placed face to face with the bright "Image." How much has Bulwer Lytton known of this mystic fact when describing, in one of his highest inspirational moods, Zanoni face to face with his *Augoeides*?

The *Logos*, or both the unmanifested and the manifested WORD, is called by the Hindus, *Iswara*, "the Lord," though the Occultists give it another name. *Iswara*, say the Vedantins, is the highest consciousness in nature. "This highest consciousness," answer the Occultists, "is only a *synthetic unit* in the world of the manifested *Logos*—or on the *plane of illusion*; for it is the sum total of Dhyan-Chohanian consciousnesses." "Oh, wise man, remove the conception *that not-Spirit is Spirit*," says Sankarâchârya. *Atma* is *not-Spirit* in its final Parabrahmic state, *Iswara* or *Logos* is Spirit; or, as Occultism explains, it is a compound unity of manifested living Spirits, the parent-source and nursery of all the mundane and terrestrial monads, *plus* their *divine* reflection, which emanate from, and return into, the *Logos*, each in the culmination of its time. There are seven chief groups of such Dhyan Chohans, which groups will be found and recognised in every religion, for they are the primeval SEVEN RAYS. Humanity, occultism teaches us, is divided into seven distinct groups and their sub-divisions, mental, spiritual, and physical.* The monad, then, viewed as ONE, is above the seventh principle (in Kosmos and man), and as a triad, it is the direct radiant progeny of the said *compound UNIT*, not the breath (and special *creation* out of *nihil*) of "God," as that unit is called; for such an idea is quite unphilosophical, and degrades Deity, dragging it down to a finite, attributive condition. As well expressed by the translator of the "Crest-Jewel of Wisdom"—though *Iswara* is "God" "unchanged in the profoundest depths of *pralayas* and in the intensest activity of the *manvantaras*" . . . , still "*beyond* (him) is

* Hence the seven chief planets, the *spheres* of the indwelling seven spirits, under each of which is born one of the human groups which is guided and influenced thereby. There are only seven planets (*especially* connected with earth), and twelve houses, but the possible combinations of their aspects are countless. As each planet can stand to each of the others in twelve different aspects, their combinations must, therefore, be almost infinite; as infinite, in fact, as the spiritual, psychic, mental, and physical capacities in the numberless varieties of the *genus homo*, each of which varieties is born under one of the seven planets and one of the said countless planetary combinations. See *Theosophist*, for August, 1886.

‘ATMA,’ round whose pavilion is the darkness of eternal MAYA.”* The “triads” born under the same Parent-planet, or rather the *radiations* of one and the same Planetary Spirit (Dhyani Buddha) are, in all their after lives and rebirths, sister, or “*twin-souls*,” on this Earth.†

This was known to every high Initiate in every age and in every country: “I and my Father are one,” said Jesus (John x. 30).‡ When He is made to say, elsewhere (xx. 17): “I ascend to *my* Father and your Father,” it meant that which has just been stated. It was simply to show that the group of his disciples and followers attracted to Him belonged to the same Dhyani Buddha, “Star,” or “Father,” again of the same planetary realm and division as He did. It is the *knowledge* of this occult doctrine that found expression in the review of “The Idyll of the White Lotus,” when Mr. T. Subba Row wrote: “Every Buddha meets at his last initiation all the great adepts who reached Buddhahood during the preceding ages . . . every class of adepts has its own bond of spiritual communion which knits them together. . . . The only possible and effectual way of entering into such brotherhood . . . is by bringing oneself within the influence of the Spiritual light which radiates *from one’s own Logos*. I may further point out here . . . that such communion is only possible *between persons whose souls derive their life and sustenance from the same divine RAY*, and that, as seven distinct rays radiate from the ‘Central Spiritual Sun,’ *all adepts and Dhyani Chohans are divisible into seven classes*, each of which is guided, controlled, and overshadowed by *one of the seven forms* or manifestations of the divine Wisdom.” (“*Theosophist*,” Aug., 1886.)

* The now universal error of attributing to the ancients the knowledge of only seven planets, simply because they mentioned no others, is based on the same general ignorance of their occult doctrines. The question is not whether they were, or were not, aware of the existence of the later discovered planets; but whether the reverence paid by them to the four exoteric and three secret great gods—the star-angels, had not some special reason. The writer ventures to say there was such a reason, and it is this. Had they known of as many planets as we do now (and this question can hardly be decided at present, either way), “they would have still connected with their religious worship only the seven, because these seven are directly and specially connected with our earth, or, using esoteric phraseology, with our septenary ring of spheres. (See *supra*.)

† It is the same, only still more metaphysical idea, as that of the Christian Trinity—“Three in One”—*i.e.*, the Universal “over-Spirit,” manifesting on the two higher planes, those of Buddhi and Mahat; and these are the three hypostases, metaphysical, but *never personal*.

‡ The identity, and at the same time the illusive differentiation of the *Angel-Monad* and the *Human-Monad* is shown by the following sentences: “My Father is *greater* than I” (John xiv. 26); “Glorify *your* Father *who is in Heaven*” (Matt. v. 16); “The righteous will *shine* in the kingdom of *their* Father” (not *our* Father) (Matt. xiii. 43) “Know ye not ye are a *temple* of God, and that the *Spirit of God dwelleth* in you? (1 Cor. iii. 16); “I *ascend* to my Father,” etc., etc.

It is then the "Seven Sons of Light"—called after their planets and (by the rabble) often identified with them—namely Saturn, Jupiter, Mercury, Mars, Venus, and—*presumably* for the modern critic, who goes no deeper than the surface of old religions*—the Sun and Moon, which are, according to the Occult teachings, our heavenly Parents, or "Father;" synthetically. Hence, as already remarked, polytheism is really more philosophical and correct, as to fact and nature, than anthropomorphic monotheism. Saturn, Jupiter, Mercury, and Venus, the four exoteric planets, and the three others, which must remain unnamed, were the heavenly bodies in direct astral and psychic communication with the Earth, its Guides, and Watchers—morally and physically; the visible orbs furnishing our Humanity with its outward and inward characteristics, and their "Regents" or *Rectors* with our Monads and spiritual faculties. In order to avoid creating new misconceptions, let it be stated that among the three *secret* orbs (or star-angels) neither Uranus nor Neptune entered; not only because they were unknown under these names to the ancient Sages, but because they, as all other planets, however many there may be, are the *gods* and guardians of other septenary chains of globes within our systems.

Nor do the two last discovered great planets depend entirely on the Sun like the rest of the planets. Otherwise, how explain the fact that Neptune receives 900 times less light than our Earth, and Uranus 390 times less, and that their satellites show a peculiarity of inverse rotation found in no other planets of the Solar System. At any rate, what we say applies to Uranus, though recently the fact begins again to be disputed.

This subject will, of course, be considered mere vagary by all those who confuse the universal order of being with their own systems of classification. Here, however, simple facts from Occult teachings are stated, to be either accepted or rejected, as the case may be. There are details which, on account of their great metaphysical abstractions, *cannot* be entered upon. Hence, we merely state that only seven of our planets are as intimately related to our globe, as the Sun is to all

* These are planets accepted for purposes of judicial astrology only. The astrotheological division differed from this one. The Sun, being a central *star* and no planet, stands in more occult and mysterious relations with *its* seven planets of our globe than is generally known. The Sun was, therefore, considered the great Father of all the Seven "Fathers," which accounts for the variations found between *seven* and *eight* great gods of the Chaldean and other countries. Neither the earth nor the moon—its satellite—nor yet stars, for another reason—were anything else than *substitutes for esoteric purposes*. Yet, even with the Sun and the Moon thrown out of the calculation, the ancients seem to have known of *seven* planets. How many more are known to us, so far, if we throw out the Earth and Moon? *Seven*, and no more: Seven primary or principal planets, the rest *planetoids* rather than planets.

the bodies subject to him in his system. Of these bodies the poor little number of *primary* and *secondary* planets known to astronomy, looks wretched enough, in truth.* Therefore, it stands to reason that there are a great number of planets, small and large, that have not been discovered yet, but of the existence of which ancient astronomers—all of them initiated adepts—must have certainly been aware. But, as their relation to the gods was sacred, it had to remain arcane, as also the names of various other planets and stars.

Besides which, even the Roman Catholic theology speaks of “*seventy* planets that preside over the destinies of the nations of this globe;” and, save the erroneous application, there is more truth in this tradition than in exact modern astronomy. The seventy planets are connected with the *seventy* elders of the people of Israel (*Numb.* 11, 16) because the *regents* of these planets are meant, not the orbs themselves; and the word seventy is a play and a *blind* upon the 7×7 of the subdivisions. Each people and nation, as said already, has its *direct* Watcher, Guardian and Father in Heaven—a Planetary Spirit. We are willing to leave their own national God, Jehovah, to the descendants of Israel, the worshippers of *Sabaoth* or SATURN; for, indeed, the *monads* of the people chosen by him are his own, and the Bible has never made a secret of it. Only the text of the English (Protestant) Bible is, in disagreement, as usual, with those of the Septuagint and the Vulgate. Thus, while in the former one reads (*in Deuter.* xxxii., 8 and 9) “When the MOST HIGH (not Jehovah) divided to the nations their inheritance . . . he set the bounds of the people according to the number of the children of Israel,” in the *Septuagint* the text reads “according to the number of the Angels” (Planet-Angels), which is more concordant with truth and fact. Moreover, all the texts agree that “the Lord’s (Jehovah) *portion* is his people; Jacob is the lot of his inheritance” (*Deut.* xxxii. 9); and this settles the question. The “Lord” Jehovah took *for his portion* Israel—what have other nations to do with that particular *national* Deity? Let then, the “angel Gabriel” watch over Iran and “Mikael-Jehovah” over the Hebrews. These are not the gods of other nations, and it is difficult to see why Christians

* When one remembers that under the powerful telescope of Sir W. Herschell, that eminent astronomer, gauging merely that portion of heaven in the equatorial plane, the approximate centre of which is occupied by our Earth—saw pass in one quarter of an hour, 16,000 stars; and applying this calculation to the totality of the “Milky Way” he found in it no less than 18 (eighteen) millions of SUNS—one wonders no longer that Laplace, in conversation with Napoleon I. should have called God a HYPOTHESIS—perfectly useless to speculate upon for *exact* physical Science, at any rate. Occult metaphysics and transcendental philosophy will alone be able to lift the smallest corner of the impenetrable veil in this direction.

should have selected a god against whose commandments Jesus was the first one to rise in rebellion.

The Planetary origin of the Monad (Soul) and of its faculties was taught by the Gnostics. On its way to the Earth, as on its way back from the Earth, each soul born in, and from, the "Boundless Light,"* had to pass through the seven planetary regions both ways. The pure Dhyani and Devas of the oldest religions had become, in course of time, with the Zoroastrians, the Seven Devs, the ministers of Ahriman, "each chained to his planet" (see *Origen's Copy of the Chart*); with the Brahmins, the Asuras and some of its Rishis—good, bad and indifferent; and among the Egyptian Gnostics it was *Thoth* or (Hermes) who was the chief of the seven whose names are given by Origen as *Adonai*, genius of the Sun; *Tao*, of the Moon; *Eloi*, of Jupiter; *Sabao*, of Mars; *Orai*, of Venus; *Astaphai*, of Mercury; and *Ildabaath* (Jehovah), of Saturn. Finally, the *Pistis-Sophia*, which the greatest modern authority on *exoteric* Gnostic beliefs, the late Mr. C. W. King, refers to as "that precious monument of Gnosticism,"—this old document echoes, while distorting it to sectarian purposes, the archaic belief of the ages. The Astral Rulers of the Spheres (the planets) create the monads (the Souls) from their own substance out of the tears of their eyes, and the sweat of their torments," endowing the monads with a spark of the Divine Light, which is their substance. It will be shown in Book II. why these "Lords of the Zodiac and Spheres" have been transformed by sectarian theology into the rebellious angels of the Christians, who took them from the Seven Devs of the Magi, without understanding the significance of the allegory. (*Vide Part II., "On the Seven Souls," and Section xv. in this Part, "GODS, MONADS AND ATOMS"*).

As usual, that which *is* and *was* from its beginning divine, pure, and spiritual in its earliest unity, became, by reason of its differentiation by the distorted prism of man's conceptions, human and impure, as reflecting man's own sinful nature. Thus, in time, the planet Saturn became reviled by the worshippers of other "gods." The nations born under Saturn—the Jewish, for instance—with whom he had become Jehovah, after having been held as a son of Saturn, or Ilda-Baath, by the Ophites, and in the book of Jasher—were eternally fighting with those born under Jupiter, Mercury, or any other planet, except Saturn-Jehovah; genealogies and prophecies notwithstanding, Jesus *the initiate* (or Jehoshua)—the type from whom the "historical" Jesus was

* C. W. King, identifies it with "that *summum bonum* of Oriental aspiration, the Buddhist Nirvana," perfect repose, the Epicurean *Indolentia*, which looks flippant enough in its expression, though not quite untrue.

copied—was not of pure Jewish blood, and thus recognised no Jehovah; nor did he worship any planetary god beside his own “Father,” whom he knew, and with whom he communed as every high initiate does, “Spirit to Spirit and Soul to Soul.” This can hardly be taken exception to, unless the critic explains to every one’s satisfaction the strange sentences put in the mouth of Jesus by the author of the Fourth Gospel (*chapter viii.*) during his disputes with the Pharisees.

“I know ye are Abraham’s seed” . . . I speak the things which I have seen with *my* Father; and ye do the things which ye heard from *your* Father. . . . Ye do the works of *your* Father. . . . Ye are of your Father, the Devil. . . . He was a murderer from the beginning, and stood not in the truth, because there is no truth in him. When one speaketh a lie he speaketh of his own; for his father also is a liar and the father thereof,” etc., etc.

That “Father” of the Pharisees was Jehovah, because identical with Cain, Saturn, Vulcan, etc.—the planet under which they were born, and the God whom they worshipped. Evidently there must be an occult meaning sought in these words and admonitions, however mistranslated, since they are pronounced by one who threatened with hell-fire anyone who says simply *vaca* (fool) to his brother (*Matthew v., 22*). And evidently, again, the planets are not merely spheres, twinkling in Space, and made to shine for no purpose, but the domains of various beings with whom the profane are so far unacquainted; nevertheless, having a mysterious, unbroken, and powerful connection with men and globes. Every heavenly body is the temple of a god, and these gods themselves are the temples of God, the Unknown “*Not Spirit.*” There is nothing profane in the Universe. All Nature is a consecrated place, as Young says:—

“Each of these Stars is a religious house.” . . .

Thus can all exoteric religions be shown the falsified copies of the esoteric teaching. It is the priesthood which has to be held responsible for the reaction in favour of materialism of our day. It is by worshipping and enforcing on the masses the worship of the shells—personified for purposes of allegory—of pagan ideals, that the latest exoteric religion has made of Western lands a Pandemonium, in which the higher classes worship the golden calf, and the lower and ignorant masses are made to worship an idol with feet of clay.

* Abraham and Saturn are identical in astro-symbology, and he is the forefather of the Jehovistic Jews.

XII.

ANCIENT THOUGHT IN MODERN DRESS.

MODERN SCIENCE IS ANCIENT THOUGHT DISTORTED, and no more. We have seen, however, WHAT INTUITIONAL SCIENTISTS THINK, and are busy about ; and now the reader may be given a few more proofs of the fact that more than one F.R.S. is unconsciously approaching the derided Secret Sciences.

With regard to cosmogony and primeval matter, modern speculations are undeniably ancient thought, *improved* by contradictory theories of recent origin. But the whole foundation belongs to Grecian and Indian Archaic astronomy and physics, in those days always called philosophy. In all the Aryan and Greek speculations, one meets with the conception of an all-pervading, unorganized, and homogeneous matter, or *Chaos*, re-named by modern scientists "Nebular condition of the world-stuff." What Anaxagoras called "Chaos" in his *Homoiomeria* is now called "primitive fluid" by Sir W. Thomson. The Hindu and Greek Atomists—Kanada, Leucippus, Democritus, Epicurus, Lucretius, etc., etc., are now reflected as in a clear mirror, in the supporters of the atomic theory of our modern days, beginning with Leibnitz's *Monads*, and ending with the "Vortical Atoms" of Sir W. Thomson.* True, the corpuscular theory of old is rejected, and the undulatory theory has taken its place. But the question is, *whether the latter is so firmly established as not to be liable to be dethroned as was its predecessor?* Light from its metaphysical aspect was fully treated of in "*Isis Unveiled*":—

"Light is the first begotten, and the first emanation of the Supreme, and Light is Life, says the Evangelist and the Kabalist. Both are electricity—the life principle, the *anima mundi*, pervading the universe, the electric vivifier of all things. Light is the great Protean magician, and under the divine will of the architect,† or rather the *architects*, the "Builders" (called *One* collectively), its multifarious, omnipotent waves gave birth to every form as well as to every living being. From its swelling electric bosom, spring *matter* and *spirit*. Within its beams lie the beginnings of all physical and chemical action, and of all cosmic and spiritual phenomena; it vitalizes and disorganizes; it gives life and produces death, and from its primordial point gradually emerged into existence the myriads of worlds, visible and invisible celestial bodies. It was at the ray of this *First* mother, one in three, that "God," according to

* The Elemental Vortices inaugurated by the *Mind* have not been improved by their modern transformation.

† I have been often taken to task for using expressions in *Isis* denoting belief in a *personal* and anthropomorphic God. This is *not* my idea. Kabalistically speaking, the "Architect" is the generic name for the *Sephiroth*, the Builders of the Universe, as the "Universal Mind" represents the collectivity of the Dhyana Chohanics Minds.

Plato, lighted a fire which we now call the sun,"* and which is *not* the cause of either light or heat, but merely the focus, or, as we might say, the lens, by which the rays of the primordial light become materialised, are concentrated upon our Solar System, and produce all the correlations of forces."

This is the *Ether*, as just explained in the views of Metcalfe, repeated by Dr. Richardson, save the submission of the former to some details of the modern undulatory theory. We do not say that we deny the theory, but assert only that it needs completion and re-arrangement. But the Occultists are by no means the only *heretics* in this respect; for Mr. Robert Hunt, F.R.S., remarks, in his *Researches on Light in its Chemical Relations*, that:—

. . . . "the undulatory theory does not account for the results of his experiments. Sir David Brewster, in his *Treatise on Optics*, showing 'that the colours of vegetable life arise . . . from a specific attraction which the particles of these bodies exercise over the differently-coloured rays of light,' and that 'it is by the light of the sun that the coloured juices of plants are elaborated, that the colours of bodies are changed, etc. . . . ' remarks that it is not easy to allow 'that such effects can be produced by the mere vibration of an ethereal medium.' And he is *forced*, he says, 'by this class of facts, to reason as if light was *material* (?).' Professor Josiah P. Cooke, of Harvard University, says that he 'cannot agree . . . with those who regard the wave-theory of light as an established principle of science.'† Herschell's doctrine, that the intensity of light, in effect of each undulation, 'is inversely as the square of the distance from the luminous body,' if correct, damages a good deal, if it does not kill the undulatory theory. That he is right, was proved repeatedly by experiments with photometers; and though it begins to be much doubted, the undulatory theory is still alive." (*Isis Unveiled*.)

To this remark of Sir W. Brewster—"forced to reason as if light was material"—there is a good deal to reply. Light, in one sense, is certainly as material as electricity itself is. And if electricity is *not* material, if it is only "a mode of motion," how is it that it can be *stored up* in Faure's accumulators? Helmholtz says that electricity must be as atomic as matter; and Mr. W. Crookes, F.R.S., supported the view in his address to the Chemical Section of the British Association, of which he was President (at Birmingham, 1886). This is what Helmholtz says (*in his Faraday Lectures*, 1881):—

"If we accept the hypothesis that the elementary substances are composed of atoms, we cannot avoid concluding that electricity also, positive as well as negative, is divided into definite elementary portions, which behave like atoms of electricity."

Here we have to repeat that which was already said in Section IX. there is but one science that can henceforth direct modern research into the one path which will lead to the discovery of the whole, hitherto

* "Timæus."

† *Modern Chemistry*.

occult, truth, and it is the youngest of all—*chemistry*, as it now stands reformed. There is no other, not excluding astronomy, that can so unerringly guide scientific intuition, as chemistry can. Two proofs of it are to be found in the world of Science—two great chemists, each among the greatest in his own country, and these are Mr. Crookes and the late Professor Butlerof: one, a thorough believer in abnormal phenomena; the other, as fervid a Spiritualist as he was great in natural Sciences. It becomes evident that while pondering over the ultimate divisibility of matter, and in the hitherto *fruitless* chase after the element of negative atomic weight, the scientifically trained mind of the chemist must feel irresistibly drawn towards those ever-shrouded worlds, to the mysterious beyond, whose measureless depths seem to close against the approach of the too materialistic hand that would fain draw aside its veil. “It is the unknown and the *ever unknowable*,” warns the Monist-Agnostic. Not so; answers the persevering chemist:—“We are on the track and are not daunted, and fain would we enter the mysterious region which *ignorance tickets unknown*.”*

A few lines at the very close of his lecture on the *Genesis of the Elements*—two or three sentences—showed the eminent Scientist to be on the royal road to the greatest discoveries. He has been overshadowing for some time “the original *protyle*,” and came to the conclusion that “he who grasps the Key will be permitted to unlock some of the deepest mysteries of creation.” The *protyle*, as that great chemist explains:—

“ . . . is a word analogous to protoplasm, to express the idea of the original primal matter existing before the evolution of the chemical elements. The word I have ventured to use for this purpose is compounded of $\pi\rho\delta$ (earlier than) and $\epsilon\lambda\eta$ (the stuff of which things are made). The word is scarcely a new coinage, for 600 years ago Roger Bacon wrote in his *Arte Chymiae*, “The elements are made out of $\epsilon\lambda\eta$ and every element is converted into the nature of another element.”

The *Knowledge* of Roger Bacon did not come to this wonderful old magician† by inspiration, but because he studied ancient works on

* Mr. Crookes' “Presidential Address” at Birmingham. “There is but one unknown—the *ultimate substratum of Spirit* (Space). That which is not the *Absolute* and the *One* is, in virtue of that very differentiation, however far removed from the physical senses, always accessible to the spiritual human mind, which is a coruscation of the undifferentiable Integral.”—(*Practical Lessons on the Occult*.)

† Thus, what the writer of the present work said ten years ago in “*Isis Unveiled*” (*Vol. I.*) was prophetic, it seems. These are the words: “Many of these mystics, by following what they were taught by some treatises, secretly preserved from one generation to another, *achieved discoveries which would not be despised even in our modern days of exact sciences*. Roger Bacon, the friar, was laughed at as a quack, and is now generally numbered among ‘pretenders’ to magic art; but his discoveries were nevertheless accepted, and are now used by those who ridicule him the most. Roger Bacon belonged by right, if not by fact, to that Brotherhood which includes all those who

magic and alchemy, having a key to the real meaning of words. But see what Mr. Crookes says of *protyle*, next neighbour to the unconscious *Mulaprakriti* of the Occultists:—

. "Let us start at the moment when the first element came into existence. Before this time, matter, as we know it, was not. It is equally impossible to conceive of matter without energy, as of energy without matter; from one point of view both are convertible terms. Before the birth of atoms, all those forms of energy, which become evident when matter acts upon matter, could not have existed*—they were locked up in the *protyle* as latent potentialities only. Coincident with the creation of atoms, all those attributes and properties, which form the means of discriminating one chemical element from another, start into existence fully endowed with energy." (*Presidential Address*, p. 16.)

With every respect due to the great knowledge of the lecturer, the Occultist would put it otherwise. They would say that no atom is ever "created," for the atoms are eternal within the bosom of the *One Atom*,—"the atom of atoms"—viewed during Manvantara as the *Jagad-Yoni* the material causative womb of the world. *Pradhāna* (unmodified matter), that which is the first form of *Prakriti*, or material visible, as well as invisible nature, and *Purusha*, spirit, are eternally one; and they are *Nirupadhi*, (without adventitious qualities or attributes) only during *Pralaya*, and when beyond any of the planes of consciousness of existence. The atom, as known to modern science, is inseparable from *Purusha*, which is spirit, but is now called "Energy" in Science. The *protyle* atom has not been comminuted or subtilized: it has simply passed into that plane, which is no plane, but the eternal state of everything beyond the planes of illusion. Both *Purusha* and *Pradhāna* are immutable and unconsumable, or *Aparināmin* and *Avyaya*, in eternity; and both during the Mayavic periods may be referred to as *Vyaya* and *Parināmin*, or that which can expand, pass away and disappear, and is "modifiable." In this sense *Purusha*, must of course, be held distinct in our conceptions from *Parabrahmam*. Nevertheless that, which is called "energy" or "force" in Science and has been explained as a dual Force by Metcalfe, is never, in fact, and cannot be energy alone; for it is the substance of the world, its soul, the all-permeant "Sarvaga," in conjunction with *Kāla* "time." The three are the trinity in one, during Manvantara, the all-potential Unity, which acts on the plane of illusion (*Maya*) as three distinct things. In Orphic

study the occult sciences. Living in the thirteenth century, almost a contemporary, therefore, of Albertus Magnus and Thomas Aquinas, his discoveries—such as gunpowder and optical glasses, and his mechanical achievements—were considered by everyone as so many miracles. He was accused of having made a compact with the Evil One."

* Just so; "those forms of energy . . . which become evident . . ." in the laboratory of the chemist and physicist; but there are other forms of energy wedded to other forms of matter, which are supersensuous, yet known to the adepts.

philosophy in Greece they were called *Phanes*, *Chaos*, and *Chronos*—the triad of the Occult philosophers of that period.

But see how closely Mr. Crookes brushes by the “Unknowable,” and what “potentialities” there are for the acceptance of Occult truths in his discoveries. He continues, speaking of the evolution of atoms:—

“ . . . Let us pause at the end of the first complete vibration and examine the result. We have already found the elements of water, ammonia, carbonic acid, the atmosphere, plant and animal life, phosphorus for the brain, salt for the seas, clay for the solid earth . . . phosphates and silicates sufficient for a world and inhabitants not so very different from what we enjoy at the present day. True the human inhabitants would have to live in a state of more than Arcadian simplicity, and the absence of calcic phosphate would be awkward as far as the bone is concerned* . . . At the lower end of our curve . . . we see a great hiatus . . . This oasis, and the blanks which precede and follow it, may be referred with much probability to the particular way in which our Earth developed into a member of our solar system. If this be so, it may be that on our Earth only these blanks occur, and not generally throughout the universe.”

This justifies several assertions in the Occult works.

Firstly, “that neither stars nor the sun can be said to be constituted of those terrestrial elements with which the chemist is familiar, though they are all present in the sun’s outward robes—and a host more of elements so far unknown to science.”

Secondly, that our globe has its own special laboratory on the far-away outskirts of its atmosphere, crossing which, every atom and molecule change and differentiate from their primordial nature.

And *Thirdly*, that though no element present on our earth could ever be possibly found wanting in the sun, there are many others which have either not reached, or not as yet been discovered on, our globe. “Some may be missing in certain stars and heavenly bodies in the process of formation; or, though present in them, these elements, on account of their present state, may not respond as yet to the usual scientific tests.” † Mr. Crookes speaks of an element of still lower atomic weight than hydrogen, an *element purely hypothetical* as far as our earth is concerned . . . though existing in abundance in the chromosphere of the Sun—the *helium*. Occult Science adds that not one of the *elements* regarded by chemistry as such really deserves the name.

Again we find Mr. Crookes speaking with approbation of “Dr. Carnelly’s weighty argument in favour of *the compound nature of the so-called elements*, from their analogy to the compound radicles!” Hitherto,

* It is just the existence of such worlds in other planes of consciousness that is claimed by the Occultist. The secret science teaches that the primitive race was *boneless*. (See Book II.) ; and that there are (to us) invisible worlds, peopled as our own, besides the *populations* of Dhyān Chohans.

† “*Five Years of Theosophy*,” p. 258 et seq.

alchemy alone succeeded within the historical periods, and in the so-called civilized countries, in obtaining a real *element*, or a particle of homogeneous matter, the *Mysterium Magnum* of Paracelsus. But then it was before Lord Bacon's day.*

" . . . Let us now turn to the upper portion of the scheme. With hydrogen of atomic weight =1, there is little room for other elements, save, perhaps, for hypothetical *Helium*. But what if we get 'through the looking-glass,' and cross the zero line in search of new principles—what shall we find on the other side of zero? Dr. Carnelly asks for an element of negative atomic weight; here is ample room and verge enough for a shadow series of such unsubstantialities. Helmholtz says that electricity is probably as atomic as matter; is electricity one of the negative elements, and the luminiferous ether another? Matter, as we now know it, does not here exist; the forms of energy which are apparent in the motions of matter are as yet only latent possibilities. *A substance of negative weight is not inconceivable.*† But can we form a clear conception of a body which combines with other bodies in proportions expressible by negative qualities?"‡

"A genesis of the elements such as is here sketched out would not be confined to our little solar system, but would probably follow the same general sequence of events in every centre of energy now visible as a star."

"Before the birth of atoms to gravitate towards one another, no pressure could be exercised; but at the outskirts of the fire-mist sphere, within which all is protyle—at the shell on which the tremendous forces involved in the birth a chemical element exert full sway—the fierce heat would be accompanied by gravitation sufficient to keep the newly-born elements from flying off into space. As temperature increases, expansion and molecular motion increase, molecules tend to fly asunder, and their chemical affinities become deadened; but the enormous pressure of the gravitation of the mass of atomic matter, outside what I may for brevity call the birth-shell, would counteract the action of heat."

"Beyond the birth-shell would be a space in which no chemical action could take place, owing to the temperature there being above what is called the dissociation-point for compounds. In this space the lion and the lamb would lie down together; phosphorus and oxygen would mix without union; hydrogen and chlorine would show no tendency to closer bonds; and even fluorine, that

* Says Mr. Crookes in the same address: "The first riddle which we encounter in chemistry is: 'What are the elements?' Of the attempts hitherto made to define or explain an element, none satisfy the demands of the human intellect. The text books tell us that an element is 'a body which has not been decomposed;' that it is 'a something to which we can add, but from which we can take nothing,' or 'a body which increases in weight with every chemical change.' Such definitions are doubly unsatisfactory: they are provisional, and may cease to-morrow to be applicable in any given case. They take their stand, not on any attribute of the things to be defined, but on the limitations of human power: they are confessions of intellectual impotence."

† And the lecturer quotes Sir George Airy, who says (*in Faraday's Life and Letters Vol. II., p. 354*), "I can easily conceive that there are plenty of bodies about us no subject to this intermutual action, and therefore not subject to the law of gravitation."

‡ The Vedantic philosophy conceives of such; but then it is not physics, but metaphysics, called by Mr. Tyndall "poetry" and "fiction."

energetic gas which chemists have only isolated within the last month or two, would float about free and uncombined."

"Outside this space of free atomic matter would be another shell, in which the formed chemical elements would have cooled down to the combination point, and the sequence of events so graphically described by Mr. Mattieu Williams in "*The Fuel of the Sun*" would now take place, culminating in the solid earth and the commencement of geological time" (p. 19).

This is, *in a strictly scientific*, but beautiful language, the description of the evolution of the differentiated Universe in the secret teachings. The learned gentleman closes his address in words, every sentence of which is like a flash of light from beyond the dark veil of materiality, hitherto thrown upon the exact sciences, and a step forward towards the *Sanctum Sanctorum* of the Occult. (*Vide* § XV., "*Gods, Monads, and Atoms.*") Thus he says:—

"We have glanced at the difficulty of defining an element; we have noticed, too, the revolt of many leading physicists and chemists against the ordinary acceptance of the term element; we have weighed the improbability of their eternal existence,* or *their origination by chance*. As a remaining alternative, we have suggested their origin by a process of evolution like that of the heavenly bodies according to Laplace, and the plants and animals of our globe according to Lamarck, Darwin, and Wallace.† In the general array of the elements, as known to us, we have seen a striking approximation to that of the organic world.‡ In lack of direct evidence of the decomposition of any element, we have sought and found indirect evidence We have next glanced at the view of the genesis of the elements; and lastly we have reviewed a scheme of their origin suggested by Professor Reynold's method of illustrating the periodic classification § Summing up all the above considerations we cannot,

* In the form they are now, we conceive ?

† And to Kapila and Manu—especially and originally.

‡ Here is a scientific corroboration of the eternal law of correspondences and analogy.

§ This method of illustrating the periodic law in the classification of elements is, in the words of Mr. Crookes, proposed by Professor Emerson Reynolds, of Dublin University, who "points out that in each period, the general properties of the elements vary from one to another, with approximate regularity until we reach the *seventh member*, which is in more or less striking contrast with the first element of the same period, as well as with the first of the next. Thus chlorine, the seventh member of Mendeleef's third period, contrasts sharply with both sodium, the first member of the same series, and with potassium, the first member of the next series; whilst on the other hand, sodium and potassium are closely analogous. The six elements, whose atomic weights intervene between sodium and potassium, vary in properties, step by step, until chlorine, the contrast to sodium, is reached. But from chlorine to potassium, the analogue of sodium, there is a change in properties *per saltum*. . . . If we thus recognise a contrast in properties—more or less decided—between the first and the last members of each series, we can scarcely help admitting the existence of a point of mean variation within each system. In general the *fourth* element of each series possesses the property we might expect a transition-element to exhibit. . . . Thus for the purpose of graphic translation, Professor Reynolds considers that the fourth member of a period—silicon, for example—may be placed at the apex of a symmetrical

indeed, venture to assert positively that our so-called elements have been evolved from one primordial matter ; but we may contend that the balance of evidence, I think, fairly weighs in favour of this speculation."

Thus inductive Science, in its Branches of Astronomy, Physics, and Chemistry, while advancing timidly towards the conquest of Nature's secrets in her final effects on our terrestrial plane, recedes to the days of Anaxagoras and the Chaldees in its discoveries of (a) the origin of our phenomenal world, and (b) the modes of formation of the bodies that compose the universe. And having to turn back for their cosmogonical hypotheses to the beliefs of the earliest philosophers, and the systems of the latter—systems that were all based on the teachings of a universal secret doctrine with regard to the primeval matter with its properties, functions, and laws,—have we not the right to hope that the day is not far off when Science will show a better appreciation of the wisdom of the ancients than it has hitherto done ?

No doubt Occult philosophy could learn a good deal from exact modern science ; but the latter, on the other hand, might profit by ancient learning in more than one way, and chiefly in Cosmogony. For

curve, which shall represent for that particular period, the direction in which the properties of the series of elements vary with rising atomic weights.

Now, the writer humbly confesses complete ignorance of modern chemistry and its mysteries. But she is pretty well acquainted with the Occult doctrine with regard to correspondences of types and antitypes in nature, and perfect analogy as a fundamental law in Occultism. Hence she ventures a remark which will strike every Occultist, however it may be derided by orthodox Science. This method of illustrating the periodic law in the behaviour of elements, whether or not still a hypothesis in chemistry, is a law in Occult Sciences. Every well-read Occultist knows that the seventh and fourth members—whether in a septenary chain of worlds, the septenary hierarchy of angels, or in the constitution of man, animal, plant, or mineral atom—that the seventh and fourth members, we say, in the geometrically and mathematically uniform workings of the immutable laws of Nature, always play a distinct and specific part in the septenary system. From the stars twinkling high in heaven, to the sparks flying asunder from the rude fire built by the savage in his forest ; from the hierarchies and the essential constitution of the Dhyān Chohans—organized for diviner apprehensions and a loftier range of perception than the greatest Western psychologist ever dreamed of, down to Nature's classification of species among the humblest insects ; finally from worlds to atoms, everything in the universe, from great to small, proceeds in its spiritual and physical evolution, cyclically and septennially, showing its seventh and fourth number (the latter the turning point) behaving in the same way as shown in that periodic law of atoms. Nature never proceeds *per saltum*. Therefore, when Mr. Crookes remarks to this that he does not "wish to infer that the gaps in Mendeleef's table, and in this graphic representation of it (the diagram showing the evolution of atoms) necessarily mean that there are elements actually existing to fill up the gaps ; these gaps may only mean that at the birth of the elements there was an easy potentiality of the formation of an element which would fit into the place"—an Occultist would respectfully remark to him that the latter hypothesis can only hold good, if the septenary arrangement of atoms is not interfered with. This is the one law, and an infallible method that must always lead to success, one who follows it.

instance, the mystical signification, alchemical and transcendental, of the many *imponderable* substances that fill interplanetary space, and which, interpenetrating each, are the direct cause, at the lower end, of the production of natural phenomena manifesting through *vibration* (so-called). The knowledge of the *real* (not the hypothetical) nature of Ether, or rather of the *Akāsa*, and other mysteries, in short, can alone lead to the knowledge of Forces. It is that substance against which the materialistic school of the physicists rebels with such fury, especially in France,* and which exact Science has to advocate notwithstanding. They cannot make away with it without incurring the risk, like a modern Samson, of pulling down the pillars of the Temple of Science, and getting buried under its roof.

The theories built upon the rejection of Force *outside* and independent of *Matter pure and simple*, have been all shown fallacious. They do not, and cannot, cover the ground, and many of the scientific data are thus proved *unscientific*. "Ether produced Sound" is said in the Purānas, and the statement is laughed at. It is the vibrations in *the air*, we are corrected. And what is air? Could it exist if there were no etheric medium in Space to buoy up its molecules? The case stands simply thus. Materialism cannot admit the existence of anything *outside* matter, because with the acceptance of an imponderable *Force*—the source and head of all the physical physical Forces—other *intelligent* Forces would have to be admitted virtually, and that would lead Science very far. For it would have to accept as a sequel the presence in Man of a still more spiritual power—entirely independent, for once, of any kind of matter physicists know anything about. Hence, apart from an hypothetical ether of Space and gross physical bodies, the whole Sidereal and unseen Space is, in the sight of the materialists, one boundless *void* in nature—blind, unintelligent, useless.

And now the next question is: What is that Cosmic Substance, and how far can one go to suspect its nature or to wrench from it its secrets, and thus feel justified in giving it a NAME? How far, especially, has modern Science gone in the direction of those secrets, and what it is doing to solve them. The latest hobby of Science, the "Nebular Theory," may afford us some answer to this question. Let us then examine the credentials of the NEBULAR THEORY.

* A group of electricians has just protested against the new theory of Clausius, the famous professor of the University of Bonn. The character of the protest is shown in the signature, which has "Jules Bourdin, in the name of the group of Electricians, which had the honour of being introduced to Professor Clausius in 1881, and whose war-cry (*cri de ralliement*) is *A bas l'Ether*"—down with ether, even; they want Universal *Void*, you see!

XIII.

SCIENTIFIC AND ESOTERIC EVIDENCE FOR, AND
OBJECTIONS TO, THE MODERN NEBULAR THEORY.

OF late Esoteric Cosmogony has been frequently opposed by the phantom of this theory and its ensuing hypotheses. "Can this most scientific teaching be denied by your adepts?" it is asked. "Not entirely," is the reply, "but the admissions of the men of Science themselves *kill* it; and there remains nothing for the adepts to deny."

To make of Science an integral *whole* necessitates, indeed, the study of spiritual and psychic, as well as physical Nature. Otherwise it will ever be like the anatomy of man, discussed of old by the profane from the point of view of his shell-side and in ignorance of the interior work. Even Plato, the greatest philosopher of his country, became guilty, before his initiation, of such statements as that liquids pass into the stomach through the lungs. Without metaphysics, as Mr. H. J. Slack says, *real* science is inadmissible.

The nebulae exist; yet the nebular theory is wrong. A nebula exists in a state of entire elemental dissociation. It *is* gaseous and—something else besides, which can hardly be connected with gases, as known to physical science; and it *is* self-luminous. But that is all. The sixty-two "coincidences" enumerated by Professor Stephen Alexander,* confirming the nebular theory, may all be explained by esoteric science; though, as this is not an astronomical work, the refutations are not attempted at present. Laplace and Faye come nearer to the correct theory than any; but of the speculations of Laplace there remains little in the present theory except its general features. Nevertheless, "there is in Laplace's theory," says John Stuart Mill, "*nothing hypothetical*; it is an example of legitimate reasoning from present effect to its past cause; it assumes nothing more than that objects which really exist, obey the laws which are known to be obeyed by all terrestrial objects resembling them." (*System of Logic*, p. 229).

This from such an eminent logician as Mill was, would be valuable, if it could only be proved that "terrestrial objects *resembling . . .*" celestial objects at such a distance as the nebulae are—*resemble those objects in reality, not alone in appearance.*

Another of the fallacies from the Occult stand-point, which are embodied in the modern theory as it now stands, is the hypothesis that the planets were all detached from the Sun; that they are bone of

* "*Smithsonian Contributions*," xxi., Art. 1, pp. 79-97.

his bone, and flesh of his flesh ; whereas, the Sun and planets are only co-uterine brothers, having had the same nebular origin, only in a different mode from that postulated by modern astronomy.

The many objections raised against the homogeneity of original diffuse matter, on the ground of the uniformity in the composition of the fixed stars, by some opponents of the modern nebular theory, do not affect the question of that homogeneity at all, but only the said theory. Our solar nebula may not be completely homogeneous, or, rather, it may fail to reveal itself as such to the astronomers, and yet be *de facto* homogeneous. The stars do differ in their constituent materials and even exhibit elements quite unknown on earth ; nevertheless, this does not affect the point that primeval matter—*i.e.*, as it *appeared even in its first* differentiation from its *laya* condition*—is yet to this day homogeneous, at immense distances, in the depths of infinitude, and likewise at points not far removed from the outskirts of our solar system.

Finally, there does not exist one single fact brought forward by the learned objectors against the “nebular theory,” (false as it is, and hence, *illogically enough*, fatal to the hypothesis of the homogeneity of matter,) that can withstand criticism. One error leads into another. A false premise will naturally lead to a false conclusion, although an inadmissible inference does not *necessarily* affect the validity of the major proposition of the syllogism. Thus, one may leave every side-issue and inference from the evidence of spectra, and lines, as simply provisional for the present, and abandon all matters of detail to physical science. The duty of the Occultist lies with the *Soul and Spirit* of Cosmic Space, not merely with its illusive appearance and behaviour. That of official physical science is to analyze and study its *shell*—the *Ultima Thule* of the Universe and man, in the opinion of Materialism.

With the latter, Occultism has nought to do. It is only with the theories of such men of learning as Kepler, Kant, Oersted, and Sir W. Herschell, who believed in a Spiritual world, that Occult Cosmogony might treat, and attempt a satisfactory compromise. But the views of those physicists differed vastly from the latest modern speculations. Kant and Herschell had in their mind's eye speculations upon the origin and *the final destiny*, as well as the present aspect, of the Universe, from a far more philosophical and psychic standpoint ; whereas modern Cosmology and Astronomy now repudiate anything like research into the mysteries of being. The result is what might be expected: complete failure and inextricable contradictions in the thousand and one varieties of so-called scientific theories, and in this theory as in all others.

The nebular hypothesis, involving the theory of the existence of a

* Beyond the zero-line of action.

primeval matter, diffused in a nebulous condition, is of no modern date in astronomy as everyone knows. Anaximenes, of the Ionian school, had already taught that the sidereal bodies were formed through the progressive condensation of a primordial *pregenetic* matter, which had almost a negative weight, and was spread out through Space in an extremely sublimated condition.

Tycho Brahe, who viewed the Milky Way as an ethereal substance, thought the new star that appeared in Cassiopeia, in 1572, had been formed out of that matter. (“*Progymnasmata*” p. 795.) Kepler believed the star of 1606 had been likewise formed out of the ethereal substance that fills the universe (“*De stellâ novâ in pede Serpentarii*,” p. 115). He attributed to that same ether the apparition of a luminous ring around the moon, during the total eclipse of the sun observed at Naples in 1605.” (“*Hypothèses Cosmogoniques*,” C. Wolf.) Still later, in 1714,—the existence of a self-luminous matter was recognised by Halley (“*Philosophical Transactions*”). Finally, the journal of this name published in 1811 the famous hypothesis on the transformation of the nebulae into stars, by the eminent astronomer, Sir W. Herschell (See “*Philosophical Transactions*,” of 1811, p. 269, *et seq.*), after which the nebular theory was accepted by the Royal Academies.

In “Five years of Theosophy,” on p. 245, an article headed “*Do the Adepts deny the Nebular Theory?*” may be read. The answer there given is “No; they do not deny *its general propositions, nor the approximative truth of the scientific hypotheses.* They only deny the *completeness* of the present, as well as the entire error of the many so-called “exploded” old theories, which, during the last century, have followed each other in such rapid succession.”

This was proclaimed at the time “an evasive answer.” Such disrespect to official science, it was argued, must be justified by the presentation, to replace the *orthodox* speculation, of another theory more complete than theirs, and having a firmer ground to stand upon. To this there is but one reply; it is useless to give out isolated theories with regard to things embodied in a whole and consecutive system, which, when separated from the main body of the teaching, would necessarily lose their vital coherence and thus do no good when studied independently. To be able to appreciate and accept the occult views on the nebular theory, one has to study the whole esoteric cosmogonical system. And the time has hardly arrived for the astronomers to be asked to accept *Fohat* and the divine Builders. Even the undeniably correct surmises of Sir W. Herschell, that had nothing “supernatural” in them, about the sun being called “*globe of fire*” (perhaps) *metaphorically*, and his early speculations about the nature of that which is now called the Nasmyth willow-leaf theory—caused that most eminent of all astro-

nomers to be smiled at by other, far less eminent colleagues, who saw and now see in his ideas only “imaginative and fanciful theories.” Before the whole esoteric system could be given out and appreciated by the astronomers, they would have to return to some of those “antiquated ideas,” not only to those of Herschell, but to the dreams of the oldest Hindu astronomers, and to abandon their own theories, none the less “fanciful” because they have appeared in one case nearly 80 years and in the other many thousands of years later. Foremost of all they would have to repudiate the ideas on the Sun’s *solidity* and *incandescence*; the sun “glowing” most undeniably, but not “burning.” Then it is stated, with regard to Sir W. Herschell’s view that those “objects,” as he called the “willow leaves,” are the immediate *sources of the solar light and heat*. And though the esoteric teaching does not regard these as he did—namely, *organisms* as partaking of the nature of life,” for the Solar “Beings” will hardly place themselves within telescopic focus—yet it asserts that the whole Universe is full of such “organisms,” conscious and active according to the proximity or distance of their planes to, or from, our plane of consciousness; and that finally the great astronomer was right in saying that “we do not know that vital action is competent to develop at once heat, light, and electricity” while speculating on those supposed “organisms.” For, at the risk of being laughed at by the whole world of physicists, the Occultists maintain that all the “Forces” of the Scientists have their origin in the *Vital Principle*, the ONE LIFE collectively of our Solar system—that “*life*” being a portion, or rather one of the *aspects* of the One Universal LIFE.

We may, therefore, as in the article under consideration, wherein, on the authority of the Adepts, it was maintained that it is “sufficient to make a *résumé* of what the solar physicists *do not know*,”—we may, we maintain, define our position with regard to the modern nebular theory and its evident incorrectness, by simply pointing out facts diametrically opposed to it in its present form. And to begin with, what does it teach?

Summarizing the aforesaid hypotheses, it becomes plain that Laplace’s theory—now made quite unrecognisable, moreover—was an unfortunate one. He postulates in the first place Cosmic matter, existing in a state of diffuse nebosity “so fine that its presence could hardly have been suspected.” No attempt is made by him to penetrate into the arcana of being, except as regards the immediate evolution of our small solar system.

Consequently, whether one accepts or rejects his theory in its bearing upon the immediate cosmological problems presented for solution, he can only be said to have thrown back the mystery a little further. To the eternal query—“Whence matter itself; whence the evolutionary impetus

determining its cyclic aggregations and dissolutions ; whence the exquisite symmetry and order into which the primeval atoms arrange and group themselves?"—no answer is attempted by Laplace. All we are confronted with, is a sketch of the *probable* broad principles on which the actual process is assumed to be based. Well, and what is this now celebrated note on the said process? What has he given so wonderfully new and original, that its ground-work, at any rate, should have served as a basis for the modern nebular theory? This is what one gathers from various astronomical works.

Laplace thought that, consequent on the condensation of the atoms of the primeval nebula, according to the "Law" of gravity, the now gaseous, or perhaps, partially liquid mass, acquired a rotatory motion. As the velocity of this rotation increased, it assumed the form of a thin disc ; finally, the centrifugal force overpowering that of cohesion, huge rings were detached from the edge of the whirling incandescent masses, contracting necessarily by gravitation (as accepted) into spheroidal bodies, which would necessarily still continue to preserve the same orbit occupied previously by the outer zone from which they were separated. ("Laplace conceived that the external and internal zones of the ring would rotate with the same angular velocity, which would be the case with a solid ring ; but the principle of equal areas requires the inner zones to rotate more rapidly than the outer.")* The velocity of the outer edge of each nascent planet, he said, exceeding that of the inner, there results a rotation on its axis. The more dense bodies would be thrown off last ; and finally, during the preliminary state of their formation, the newly-segregated orbs in their turn throw off one or more satellites . . . In formulating the history of the rupture and planetation of rings, Laplace says :

"Almost always each ring of vapours must have broken up into numerous masses, which, moving with a nearly uniform velocity, must have continued to circulate at the same distance around the Sun. These masses must have taken a spheroidal form with a motion of rotation in the same direction as their revolution, since the inner molecules (those nearer to the Sun) would have less actual velocity than the exterior ones. They must then have formed as many planets in a state of vapour. But, if one of them was sufficiently powerful to unite successively, by its attraction, all the others around its centre, the ring of vapours must have been thus transformed into a single spheroidal mass of vapours circulating around the Sun with a rotation in the same direction as its revolution. The latter case has been the more common, but the solar system presents us the first case, in the four small planets which move between Jupiter and Mars."

While few will be found to deny "the magnificent audacity of this

* "World-Life." Prof. Winchell points to a good many mistakes of Laplace in his work ; but as a *geologist* he is not infallible himself in his "astronomical speculations."

hypothesis," it is impossible not to recognise the insurmountable difficulties with which it is attended. Why, for instance, do we find that the satellites of Neptune and Uranus display a retrograde motion; that, in spite of its closer proximity to the Sun, Venus is less dense than the Earth? Similarly, the more distant Uranus is more dense than Saturn? How is it that so many variations in the inclination of their axes and orbits are present in the supposed progeny of the central orb; that such startling variations in the size of the planets is noticeable; that the Satellites of Jupiter are more dense by .288 than their primary; that the phenomena of meteoric and cometic systems still remain unaccounted for? To quote the words of a Master: "They (the Occultists) find that the centrifugal theory of Western birth is unable to cover *all* the ground. That, unaided, it can neither account for every oblate spheroid, nor explain away such evident difficulties as are presented by the relative density of some planets. How, indeed, can any calculation of centrifugal force explain to us, for instance, why Mercury, whose rotation is, we are told, only about one-third that of the Earth, and its density only about one-fourth greater than the Earth, should have a polar compression *more than ten times as great as the latter*? And again, why Jupiter, whose equatorial rotation is said to be 'twenty-seven times greater, and its density only about one-fifth that of the earth' should have its polar compression seventeen times greater than that of the earth? Or why Saturn, with an equatorial velocity fifty-five times greater than Mercury for centripetal force to contend with, should have its polar compression *only three times greater than Mercury's*? To crown the above contradictions, we are asked to believe in the Central Forces, as taught by Modern Science, even when told that the equatorial matter of the Sun, with more than four times the centrifugal velocity of the Earth's equatorial surface, and only about one-fourth part of the gravitation of the equatorial matter, has not manifested any tendency to bulge at the Solar equator, nor shown the least flattening of the poles of the Solar axis. In other and clearer words, the Sun, with only one fourth of our Earth's density for the centrifugal force to work upon, has no polar compression at all! We find this objection made by more than one astronomer, yet never explained away satisfactorily so far as the 'Adepts' are aware."

"Therefore, do they (the Adepts) say, that the great men of science of the West, knowing next to nothing either about cometary matter, centrifugal and centripetal forces, the nature of the nebulae, or the physical constitution of the Sun, the Stars, or even the Moon, are imprudent to speak as confidently as they do about the 'central mass of the Sun' whirling out into space planets, comets, and what not" "We maintain that it (the Sun) evolves out only the *life-principle*, the

Soul of those bodies, *giving and receiving* it back, in our solar system, as the 'Universal Life-Giver' . . . in infinitude and Eternity; that the solar system is as much the *microcosm* of the ONE Macrocosm as man is the former when compared with his own little Solar Cosmos."^{*}

The essential faculty possessed by all the cosmic and terrestrial elements, of generating within themselves a regular and harmonious series of results, a concatenation of causes and effects, is an irrefutable proof that they are either animated by an *extra* or *intra* INTELLIGENCE, or conceal such within or behind the *manifested veil*. Occultism does not deny the certainty of the mechanical origin of the Universe; it only claims the absolute necessity of mechanicians of some sort behind those Elements (or *within*)—a dogma with us. It is not the fortuitous assistance of the atoms of Lucretius, who himself knew better, that built the Kosmos and all in it. Nature herself contradicts such a theory. Celestial space, containing matter so attenuated as is Ether, cannot be called on, with or without attraction, to explain the common motion of the sidereal hosts. Although the perfect accord of their mutual revolution indicates clearly the presence of a mechanical cause in Nature, Newton, who of all men had best right to trust to his deductions and views, was nevertheless forced to abandon the idea of ever explaining, by the laws of *known* Nature and its Material forces, the original impulse given to the millions of orbs. He recognised fully the limits that separate the action of natural Forces from that of the INTELLIGENCES that set the immutable laws into order and action. And if a NEWTON had to renounce such hope, which of the modern materialistic pigmies has the right of saying: "I know better"?

To become complete and comprehensible, a cosmogonical theory has to start with a primordial Substance diffused throughout boundless Space, *of an intellectual and divine Nature*. That substance must be the Soul and Spirit, the Synthesis and *Seventh Principle* of the manifested Kosmos, and, to serve as a spiritual *Upadhi* to this, there must be the sixth, its vehicle—*primordial physical matter*, so to speak, though its nature must escape for ever our limited *normal* senses. It is easy for an astronomer, if endowed with an imaginative faculty, to build a theory of the emergence of the universe out of chaos, by simply applying to it the principles of mechanics. But such a universe will always prove, with respect to its scientific human creator, a Frankenstein's monster; it will lead him into endless perplexities. The application of the mechanical laws only can never carry the speculator beyond the objective world; nor will it unveil to men the origin and final destiny of Kosmos. This is

* "Five Years of Theosophy," pp. 249-50. Art. "Do the Adepts deny the Nebular Theory?"

whither the nebular theory has led Science. In sober fact and truth this theory is twin sister to that of Ether, and both are the offsprings of necessity; one as indispensable to account for the transmission of light, as the other to explain the problem of the origin of the solar systems. The question with them is, how the same homogeneous matter* could, obeying the laws of Newton, give birth to bodies—sun, planets, and their satellites—subject to conditions of identity of motion and formed of such heterogeneous elements.

Has the nebular theory helped to solve the problem, even if applied solely to bodies considered as inanimate and material? We say most decidedly not. What progress has it made since 1811, when Sir W. Herschell's paper, first presenting facts based on observation and showing the existence of nebular matter, made the "Sons" of the Royal Society "shout for joy"? Since then a still greater discovery has permitted, through spectrum analysis, the verification and corroboration of Sir W. Herschell's conjecture. Laplace demanded some kind of primitive "world stuff" to prove the idea of progressive world-evolution and growth. Here it is, as offered two millenniums ago.

The "world stuff," now *nebula*, was known from the highest antiquity. Anaxagoras taught that, having differentiated, the subsequent commixture of heterogeneous substances remained motionless and unorganized, until finally "the Mind"—the collective body of Dhyan Chohans, we say—began to work upon and communicated to it motion and order (*Aristotle's "Physica," viii, 1.*) The theory is now taken up in its first portion, that of any "Mind" interfering with it being rejected. Spectrum analysis reveals the existence of nebulae formed entirely of gases and luminous vapours. Is this the primitive nebular matter? The spectra reveal, it is said, the physical conditions of the matter which emits cosmic light. The spectra of the resolvable and the irresolvable nebulae are shown to be entirely different, the spectra of the latter showing their physical state to be that of glowing gas or vapour. The bright lines of one nebula reveal the existence of hydrogen in it, and of other material substances known and unknown. The same in the atmospheres of the Sun and stars. This leads to the direct inference that a star is formed by the condensation of a nebula; hence that even the metals themselves on earth are

* Had astronomers held simply, in their present state of knowledge, to the hypothesis of Laplace, which was simply the formation of the planetary system, it might in time have resulted in something like an approximate truth. But the two parts of the general problem, that of the formation of the universe, or the formation of the suns and stars from the primitive matter, and then the development of the planets around their sun, rest on quite different facts in nature and are even so viewed by Science itself. They are at the opposite poles of being.

formed owing to the condensation of hydrogen or some other primitive matter, some ancestral cousin to "helium," perhaps, or some yet unknown stuff? *This does not clash with the occult teachings.* And this is the problem that chemistry is trying to solve; and it must succeed sooner or later in the task, accepting *volens volens*, when it does, the esoteric teaching. But when this does happen, it will kill the nebular theory as it now stands.

Meanwhile Astronomy cannot accept in any way, if it is to be regarded as *an exact science*, the present theory of the filiation of stars—even if occultism does so in its own way, as it explains this filiation differently—because astronomy has *not one single physical datum* to show for it. Astronomy could anticipate Chemistry in proving the existence of the fact, if it could show a planetary nebula exhibiting a spectrum of three or four bright lines, gradually condensing and transforming into a star, with a spectrum all covered with a number of dark lines. But "the question of the variability of the nebula, even as to their form, is yet one of the mysteries of Astronomy. The data of observation possessed so far are of too recent an origin, too uncertain to permit us to affirm anything." (*Cosmogonical Hypotheses of Wolf.*)

Since the discovery of the spectroscope, its magic power has revealed to its adepts only one single transformation of a star of this kind; and even that one showed directly the reverse of what is needed as proof in favour of the nebular theory; namely—a *star transforming itself into a planetary nebula*. As told in *The Observatory* (Vol. I., p. 185), the temporary star which appeared in the constellation Cygnus, in November, 1876, discovered by J. F. J. Schmidt, exhibited a spectrum broken by very brilliant lines. Gradually, the continuous spectrum and most of the lines disappeared, leaving finally one single brilliant line, which appeared to coincide with the green line of the nebula.

Though this metamorphosis is not irreconcilable with the hypothesis of the nebular origin of the stars, nevertheless this single solitary case rests on no observation whatever, least of all on direct observation. The occurrence may have been due to several other causes. Since astronomers are inclined to think our planets are tending toward precipitation on the Sun, why should not that star have blazed out owing to a collision of such precipitated planets, or, as many suggest, the appulse of a comet? Anyhow, the only known instance of a star transformation since 1811 is not favourable to the nebular theory. Moreover, on the question of this theory, as in all others, astronomers disagree.

In our own age, it was Buffon, before Laplace ever thought of it, who, very much struck by the identity of motion in the planets, was the first to propose the hypothesis of the planets and their satellites originating in

the bosom of the Sun. Forthwith, and for the purpose, he invented a special comet, supposed to have torn out, by a powerful oblique blow, the quantity of matter necessary to their formation. Laplace gave its dues to the "comet" in his "*Exposition du Système du Monde.*" (Note VII.) But the idea was seized and even improved upon by a conception of the alternate evolution from the Sun's central mass of planets *apparently* without weight or influence on the motion of the visible planets—and as evidently without any more existence than the likeness of Moses in the moon.

But the modern theory is also a variation on the systems elaborated by Kant and Laplace. The idea of both was that, at the origin of things, all that matter which now enters into the composition of the planetary bodies was spread over all the space comprised in the solar system—and even beyond. It was a nebula of extremely small density, whose condensation gradually gave birth, by a mechanism that has hitherto never been explained, to the various bodies of our systems. This is the original nebular theory, an *incomplete* yet faithful repetition—a short chapter out of the large volume of universal *esoteric* cosmogony—of the teachings in the Secret Doctrine. And both systems, Kant's and Laplace's, differ greatly from the modern theory, redundant with conflicting *sub-theories* and fanciful hypotheses.

"*The essence of cometary matter and of that which composes the stars is totally different from any of the chemical or physical characteristics with which Western Science is now acquainted.* While the spectroscope has shown the probable similarity (owing to the chemical action of terrestrial light upon the intercepted rays) of earthly and sidereal substance, the chemical actions, peculiar to the variously progressed orbs of space, have not been detected, nor proven to be identical with those observed on our own planet"—say the Teachers (*op. cit.*). Mr. Crookes says almost the same in the fragment quoted from his lecture, "*Elements and Meta-Elements.*"

"At the utmost," observes C. Wolf,* "could the nebular hypothesis show in its favour, with W. Herschell, the existence of planetary nebulæ in various degrees of condensation, and of spiral nebulæ, with nuclei of condensation on the branches and centre.† But, in fact, the knowledge of the bond that unites the nebulæ to the stars is yet denied to us; and lacking as we do direct observation, we are even debarred from establishing it even on the analogy of chemical composition."

It is evident that, even if the men of science, leaving aside the

* Member of the Institute, Astronomer of the Observatory, Paris, "Cosmogonical Hypotheses."

† But the spectra of these nebulæ have never yet been ascertained. When they are found with bright lines, then only may they be cited.

difficulty arising for them out of such undeniable variety and heterogeneity of matter in the constitution of nebulae, did admit, with the ancients, that the origin of all the visible and invisible heavenly bodies must be sought for in one primordial homogeneous world-stuff, in a kind of *PRE-protyle*,*—it is evident that this would not put an end to their perplexities. Unless they admit also that our actual visible Universe is merely the *Sthula-Sharira*, the gross body, of the sevenfold Kosmos, they will have to face another problem; especially if they risk maintaining that its now visible bodies are the result of the condensation of that one and single primordial matter. For mere observation shows them that the actions which produced the actual Universe are far more complex than could ever be embraced in that theory.

First of all, there are two distinct classes of *irresolvable* nebulae,—as Science itself teaches.

The telescope is unable to distinguish between the two, but the spectroscope can, and notices, therefore, an essential difference between their physical constitutions.†

“Some of these,” Wolf tells us, “have a spectrum of three or four bright lines, others a continuous spectrum. The first are gaseous, the others formed of a pulverulent matter. The former must constitute a veritable atmosphere: it is among these that the solar nebula of Laplace has to be placed. The latter form an *ensemble* of particles that may be considered as independent, and the rotation of which obeys the laws of

* Mr. Crookes' “Protyle” must not be regarded as the *primary* stuff, out of which the Dhyān Chohans, in accordance with the immutable laws of nature, wove our solar system. This *protyle* cannot even be the first *prima-materia* of Kant, which that great mind saw used up in the formation of the worlds, and thus existing no longer in a diffused state. It is a *MEDIATE* phase in the progressive differentiation of cosmic substance from its normal undifferentiated state. *Protyle* is then the aspect assumed by matter in its middle passage into full objectivity.

† “The question of the resolvability of the nebulae has been often presented in too affirmative a manner and quite contrary to the ideas expressed by the illustrious experimenter with the spectra of these constellations—Mr. Huggins. Every nebula whose spectrum contains only bright lines is gaseous, it is said, and hence is irresolvable; every nebula with a continuous spectrum must end by resolving into stars with an instrument of sufficient power. This assumption is contrary at once to the results obtained, and to spectroscopic theory. The *Lyra* nebula, the *Dumb-bell* nebula, the central region of the nebula of Orion, appear resolvable, and show a spectrum of bright lines; the nebula of *Canis Venatici* is not resolvable, and gives a continuous spectrum. Because, indeed, the spectroscope informs us of the physical state of the constituent matter of the stars, but affords us no notions of their modes of aggregation. A nebula formed of gaseous globes (or even of nuclei, faintly luminous) surrounded by a powerful atmosphere) would give a spectrum of lines and be still resolvable; such seems to be the state of Huggins' region in the Orion nebula. A nebula formed of solid or fluidic particles in a state of incandescence, a true cloud, will give a continuous spectrum but will be *irresolvable*.” (*C. Wolf, Cosmogonical Hypotheses.*)

internal weight: such are the nebulæ adopted by Kant and Faye. Observation allows us to place the one as the other at the very origin of the planetary world. But when we try to go beyond and ascend to the primitive chaos which has produced the totality of the heavenly bodies, we have first to account for the actual existence of these two classes of nebulæ. If the primitive chaos were a *cold luminous gas*,* one could understand how the contraction resulting from attraction could have heated it and made it luminous. We have to explain the condensation of this gas to the state of incandescent particles, the presence of which is revealed to us in certain nebulæ by the spectroscope. If the original chaos was composed of such particles, how did certain of their portions pass into the gaseous state, while others have preserved their primitive condition?”

Such is the synopsis of the objections and difficulties to the acceptance of the nebular theory brought forward by the French *savant*, who concludes his interesting chapter by declaring that:—

“The first part of the Cosmogonical problem,—what is the primitive matter of chaos; and how did that matter give birth to the sun and stars?—thus remains to this day in THE DOMAIN OF ROMANCE AND OF MERE IMAGINATION.” †

If this is the last word of Science upon that subject, whither then should one turn in order to learn what the nebular theory is supposed to teach? What, in fact, is this theory? What it *is*, no one seems to know for a certainty. What it *is not*—we learn from the erudite author of the “World-Life.” He tells us that:—

(I.) It “*is not a theory of the evolution of the Universe . . . but only and primarily a genetic explanation of the phenomena of the solar system, and accessorially a co-ordination of the principal phenomena in the stellar and nebular firmament, as far as human vision has been able to penetrate.*”

(II.) “That it does not regard the Comets as involved in that particular evolution which has produced the solar system.” (*Esoteric doctrine does.*)

(It does, because it, too, recognises the comets as forms of cosmic existence *co-ordinated with earlier stages of nebular evolution*; and it actually assigns to them chiefly the formation of all worlds.)

(III.) “*That it does not deny an antecedent history of the luminous fire mist*” —(the *secondary* stage of evolution in the Secret Doctrine) “and makes no claim to having reached an absolute beginning.” And even

* See Stanza III. about “Light, or the *cold* Flame,” and Commentary Number 8, where it is explained that the “mother” (Chaos) is a cold Fire, a cool Radiance, colourless, formless, devoid of every quality. “Motion is the One Eternal *is*, and contains the potentialities of every quality in the Manvantaric Worlds,” it is said.

† *Hypothèses Cosmogoniques*, C. Wolf, 1886.

it allows that this "fire mist may have previously existed in a cold, non-luminous and *invisible* condition"

(IV.) "And that finally: it does not profess to discover the ORIGIN of things, *but only a stadium in material history*" leaving "the philosopher and theologian as free as they ever were to seek for the origin of the modes of being."*

But this is not all. Even the greatest philosopher of England—Mr. Herbert Spencer—arrayed himself against the fantastic theory by saying that (a) "The problem of existence is not resolved" by it; (b) the nebular hypothesis "throws no light upon the origin of diffused matter," and (c) that "the nebular hypothesis (as it now stands) implies a First Cause."†

The latter, we are afraid, is more than our modern physicists have bargained for. Thus, it seems that the poor "hypothesis" can hardly expect to find help or corroboration even in the world of the metaphysicians.

Considering all this, the Occultists believe they have a right to present *their* philosophy, however misunderstood and ostracised it may be at present. And they maintain that this failure of the scientists to discover the truth is entirely due to their materialism and contempt for transcendental sciences. Yet although the scientific minds in our century are as far from the true and correct doctrine of Evolution as ever, there may be still some hope left for the future, as we find another great scientist giving us a faint glimmer of it.

In an article in *Popular Science Review* (Vol. XIV., p. 252) on "Recent Researches in Minute Life," we find Mr. H. J. Slack, F.C.S., Sec. R.M.S., saying: "There is an evident convergence of all sciences, from physics to chemistry and physiology, toward *some* doctrine of evolution and development, of which the facts of Darwinism *will form part*, but what ultimate aspect this doctrine will take, there is little, if any, evidence to show, and *perhaps it will not be shaped by the human mind until metaphysical as well as physical inquiries are much more advanced.*"

This is a happy forecast indeed. The day *may* come, then, when the "Natural Selection," as taught by Mr. Darwin and Mr. Herbert Spencer, will form only a *part*, in its ultimate modification, of our Eastern doctrine of Evolution, which will be Manu and Kapila *esoterically explained.*

* "World-Life," p. 196.

† *Westminster Review*, XX., July 27, 1868.