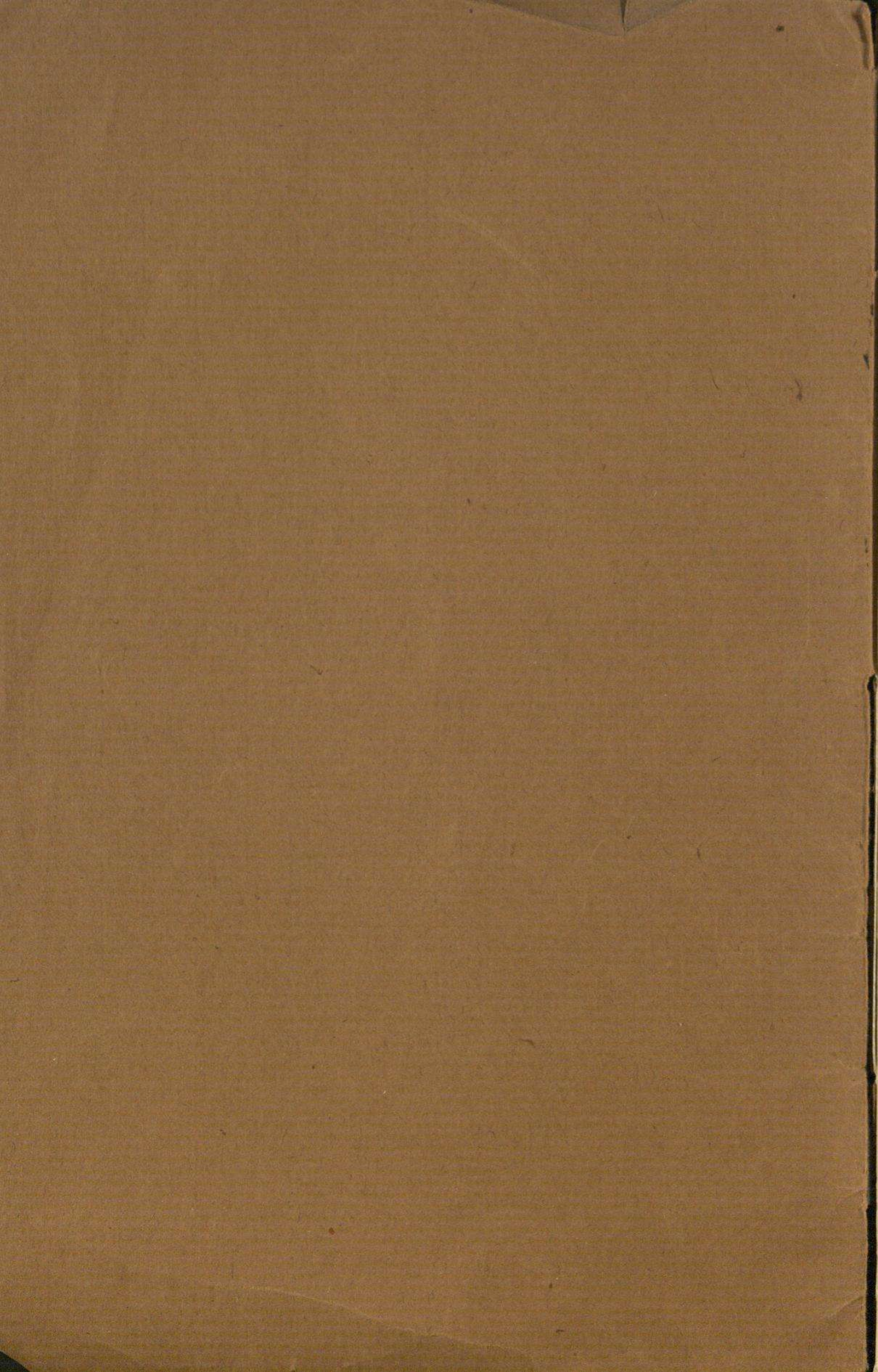


*M. Roso de Luna.*

**THE AGREEMENT OF EASTERN  
WITH WESTERN ASTRONOMY**

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# The Agreement of Eastern with Western Astronomy.

M. ROSO DE LUNA  
(from the Spanish).

## PART I.<sup>1</sup>

### A NEW VISTA FOR WESTERN ASTRONOMY: ASTRO-CHEMICAL SERIES.

“. . . The Pythagoreans asserted that the doctrine of Numbers, the chief of all in Esotericism, had been revealed to man by the Celestial Deities” (“Secret Doctrine,” by H. P. Blavatsky, vol. i. p. 467, 3rd edn.).

“Let no one enter who knows not Geometry” (Inscription on the Temple of Delos).

“In the beginning the Elohim formed the worlds by sixes” (Siphra Dtzenioutha).

“. . . The importance attached to the number *seven* throughout all antiquity was due to no fanciful imaginings of uneducated priests, but to a profound knowledge of Natural Law” (S.D., p. 497).

1. The apparent contrast and opposition between the teaching of the “Secret Doctrine” and Western Astronomy is capable of being entirely reconciled by a more profound study of the numbers which define the Elements of the Planetary System.

2. The heterogeneity and apparent confusion in these figures relating to volume, mass, density, rotation, translation, and eccentricity of the bodies of the planetary system, which are noticeable in all astronomical almanacks, seem to prevent any arrangement in evolutionary series or any harmonious correlation between them and the sun which retains them in their orbits (see table).

3. A similar heterogeneity was noticeable in Chemistry until Dumas sketched out the first natural families of the simple bodies. After him came Wendt with his *biogenetic system*, Döbereiner with his *analogical triads*,

<sup>1</sup> The contents of Part I. are an abstract of a work in the press, “Solar Evolution and Astro-chemical Series,” by the author.

## PRINCIPAL ELEMENTS OF THE SOLAR SYSTEM.

Names.	Mean Distances from the Sun.	Length of Year.	Period of Rotation.		Volume.	Mass.	Density.		Eccentricity.	Inclination of Orbit to the Ecliptic.	Longitudes of Perihelion.	Longitudes of Ascending Node.
			Days.	Hrs. Mins.			Earth = 1.	Water = 1.				
Sun .....	—	—	25	4 29	1283720'00	324,439	0'25	1'39	—	0 0	—	—
Jupiter .....	5'202	11'86	0	9 55	1279'00	310	0'24	1'33	0'048	1 18	11 54	98 56
Saturn .....	9'538	29'45	0	10 14	719'00	92	0'13	0'70	0'056	2 29	90 6	112 20
Uranus ...	19'183	84'02	—	—	69'00	14	0'19	1'07	0'046	0 46	170 50	73 13
Neptune ...	30'055	164'76	—	—	55'00	16	0'30	1'65	0'008	1 47	49 59	130 6
Earth .....	1'000	1'00	0	23 56	1'00	1	1	5'50	0'016	0 0	100 21	0 0
Venus .....	0'723	0'61	225 (?)	—	0'97	0'79	0'81	4'44	0'006	3 23	129 27	75 19
Mars .....	1'523	1'88	0	24 37	0'15	0'10	0'71	3'91	0'093	1 51	333 17	48 23
Mercury ...	0'387	0'24	88 (?)	—	0'05	0'06	1'17	6'45	0'205	7 0	75 7	46 33
Moon .....	—	—	27	7 43	0'02	0'01	0'61	3'38	0'054	5 8	—	—

Newlands and Law with their *chemical musical octaves*, and Mendeleeff and Meyer with their *baro-atomic series*, which, by arranging bodies according to their atomic weights, enabled the prediction of all the properties of the as yet unknown bodies Gallium and Scandium.

4. The idea of series or order, consubstantial with the idea of number, and the basis of all the higher mathematics, even if it does not blaze out, should at least be discoverable in the solar system, through all its apparent numerical disorder.

5. If we consider the numerical elements of the planetary system set out in the preceding diagram, we find, immediately, an entire contrast between the planets without and those within the ring of asteroids which swarm between Mars and Jupiter. The differences noticeable between these two sets of planets are:—

(a) *The length of the orbital revolution round the sun.* These periods are comparatively very long in the exterior planets (from 12 to 164 terrestrial years) and very short in those within the said ring (from 89 to 680 days).

(b) *The length of the diurnal revolution.* These periods, universally, are short in the exterior planets (from 9 to 10 hours) and long in the interior ones (from 23 to 24 hours).

(c) *The planetary volume.* The volume, taking the Earth as unity, is enormous in the exterior planets (from 55 to 1,279 times that of the Earth) and very small in the interior ones (from 0.97 to 0.05).

(d) *The density compared with Earth* is very small in the outer planets (from 0.13 to 0.30) and large in the inner ones (from 0.61 or 0.71 to 1). This is reciprocal to the comparative volumes.

(e) *The density compared with that of water.* A numerical feature, like the last, approaching that of water in the outer planets (from 0.70 to 1.65), and much greater in the inner ones (from 3.38 or 3.91 to 6.45).

(f) *The satellites which form the court of each planet.* The outer planets have a large number of satellites, while the inner ones have only three (Deimos, Phobos, and Moon). These last are not really satellites.

6. Deimos and Phobos are more in the nature of asteroids, captured by Mars, as perhaps Eros—the planet that revolves between Mars and Earth—will be one day. Astronomical conditions seem to suggest this.

7. The Moon is a satellite of the Earth in a kinetic sense, but not in an evolutionary or Laplacian sense; since it is noticeable (a) that the orbits of all the satellites of the Sun (the planets), as also those of the satellites of Jupiter and Saturn, are in the plane of their respective central stars, while the orbit of the Moon is not in the plane of the terrestrial equator, but in that of the Ecliptic, which is also the plane of all the other planets; (b) that no satellite of the Sun or of the planets reaches  $\frac{1}{1000}$  of the mass of its central star, while the Moon is  $\frac{1}{80}$  of the mass of the Earth, which fact would tend to

class the Moon-Earth pair with the system of double stars ; (c) that all the satellites have rotation periods distinct from their translation periods, as has been shown in the case of Jupiter's moons, while the Moon has no rotation properly so called, as its period is the same as that of the translation. The Moon, therefore, is more like a planet, formerly independent, now captured by the Earth's attraction.

8. The great outer planets (Neptune, Uranus, Saturn, and Jupiter) are capable of producing satellites, and they (or the primitive masses of their nebular rings) do produce them. The small inner planets (those of the ring of asteroids, Mars, Moon, Earth, Venus, and Mercury) are not yet capable of producing them. The former seem to be fertile stars, the latter unfertile, in the evolutionary or Laplacian sense.

9. The pseudo-satellites of Mars and Earth are merely imitations of a superior evolutionary grade, like the imitations of vegetables by many of the salts of copper and manganese or of those of animals by *mimosa pudica*, or, lastly, of mankind by certain animals—an anticipation, a sketch, an attempt, a proof that nature never proceeds by leaps.

10. The outer planets are the oldest, the most emancipated, through their distance from their elder brother, the Sun, they are those which have been able to produce satellites. Their swift rotation, their long year-periods, give more vitality, so to speak, to their evolution. Their density, analogous to that of water, gives them a resemblance to the beings called organic—those, that is, which display reproductive faculty. The inner planets, on the contrary, are the youngest ; they live, joined, as one may say, by the placenta to their mother, the Sun, and are incapable of producing satellites. Their rotations are very slow, and their densities compared with that of water are analagous to those of the more common mineral substances of our globe. They are, therefore, on a noticeably lower grade than the others.

11. The planets, therefore, follow laws identical with those of the simple bodies of chemistry. Both in the one and the other density is in inverse ratio to energy. The simple bodies of low atomic weight, as Fluorine, Chlorine, Oxygen, etc., have the greatest power of combination, the greatest kinetic energy, as the calorimeter shows.

12. The volumes of the outer planets increase from without inwards. Those of the inner planets decrease on both sides of the Earth. It is evident, then, that the maximum, from the point of view of volume of the first, is in Jupiter, and of the second in the Earth.

13. But Jupiter, Earth, and the Sun, the three principal stars of their respective series, show the following remarkable relation (Earth = 1):—

A. Volume of Earth = 1.  
 „ „ Jupiter = 1,000 and 279 unities.  
 „ „ Sun = 1,000,000 and 283 unities of 1,000.

That is to say, there is an almost perfect "millesimal law" between the stars typical of the three classes of bodies of the planetary system, a fact which calls for serious thought.

14. The Earth, the most imperfect world, does not follow out the parallel with the other two as regards the elements of mass, density, etc.; but the correlation continues between the Sun and Jupiter, a true sun in the germ or in miniature, as the following correlations show:—

*B.* Density of the two stars as compared with that of the Earth—

Jupiter	...	...	...	...	...	...	0.24
Sun	...	...	...	...	...	...	0.25

*C.* Density compared with water—

Jupiter	...	...	...	...	...	...	1.33
Sun	...	...	...	...	...	...	1.39

*D.* Relative mass (Earth = 1)—

Jupiter	...	...	...	...	310 units
Sun	...	...	...	...	324 thousands of units

*E.* Attendant satellites—

Jupiter has 7 (probably 10).

Sun<sup>1</sup> has 10 great satellites (planets).

*F.* Comparison of Jupiter's year with the most typical Sun-period, deduced from the Spots and the Solar corona—

Jupiter's year = 11 years and 314 Julian days.

Sun's coronal cycle = 11 years and a period not exactly defined, but approximately 314 days.<sup>2</sup>

*G.* Light proper to the Star.

The Sun, like the other Stars, is self-luminous. In the case of Jupiter the latest investigations begin to indicate a suspicion that it, too, has its own light. The difference is considerable, although this suggests that the two stars are of the nature of a stellar pair, since there are satellite stars like the companion of Procyon, which have less than  $\frac{1}{20000}$  of the light of the

<sup>1</sup> Counting the asteroids as one, as they probably proceed from the disintegration of a planet.

<sup>2</sup> In view of this correlation we can affirm, without incurring the reproach of being fantastic, an occult fact of the greatest interest. Given the noteworthy agreement between the translation cycle of Jupiter and the period of the maximum and minimum of the Sun's corona, it appears that the vital debility (weakness, want of tone), which presumably coincides with Jupiter's greatest distance from the Sun in aphelion, seems to coincide with the period of least coronal activity of the Sun, and Jupiter's nearest approach in perihelion with the maximum of the Sun, as though both suffered decrease of their respective powers when distant and increase when near. From this to unconscious love between the two stars, expressed in physical manifestations, is only a step. The Sun-spots also agree with this singular fact. Their relative maxima and minima show periods appreciably resembling those of the translations of Jupiter, Saturn, Uranus, and even Neptune.

principal star; and other satellite-stars with so little light that they have only been discovered by methods other than direct observation, such as the companion of Algol and the thirty-five double stars of this type.

15. We can now arrange the planets thus:—

Neptune	Uranus	Saturn	Sun	Jupiter	Venus	Mercury
Asteroids	Mars	Moon	Earth			

where the horizontal line indicates the correspondence of the respective classes, and there is a further vertical correspondence limited to Sun, Jupiter, and Earth, where, in respect of their volume, there seem to be three distinct evolutions. This vertical correspondence is not clear in the case of the others, as the grades of their various evolutions differ.

16. If Jupiter and Saturn are really Suns in miniature or in germ, their respective satellites should show the same characteristics as we have noted in the case of the Sun's satellites (the planets).

In the first place, let us look at the table of satellites from the astronomical annuals:—

#### PRINCIPAL ELEMENTS OF THE DIFFERENT SATELLITES.

Names.	Mass. (That of the Planet taken as = 1.)	Distance from Planet. (Radius of Planet = 1.)	Eccen- tricity.	Times taken in Traversing Orbit.			Inclination to the Ecliptic.		Longitude of Ascending Nodes.	
				Days.	Hrs.	Mins.	Degs.	Mins.	Degs.	Mins.
{ Phobos .....	—	2.70	0.022	0	7	39	27	28	80	47
{ Deimos .....	—	6.74	0.003	1	6	17	27	24	81	6
{ VI. of Jupiter.....	—	—	—	—	—	—	—	—	—	—
{ V. " " .....	—	2.55	0.005	0	11	57	2	20	342	1
{ Io .....	0.00001600	5.93	—	1	18	27	2	8	335	45
{ Europa .....	0.00002300	9.44	—	3	13	13	1	38	336	55
{ Ganymede .....	0.00008800	15.06	0.001	7	3	42	1	59	341	30
{ Calisto .....	0.00004200	26.49	0.007	16	16	32	1	57	344	56
{ Ring of Saturn .....	0.00161000	1.48 to 2.23	—	0	10	32	28	5	—	—
{ Mimas.....	0.00000007	3.07	0.019	0	22	37	27	29	164	43
{ Enceladus .....	0.00000025	3.94	0.004	1	8	53	28	4	167	58
{ Tethys.....	0.00000110	4.87	—	1	21	18	28	40	166	4
{ Dionea .....	0.00000187	6.25	0.002	2	17	41	28	4	168	5
{ Rhea .....	0.00000400	8.73	0.001	4	12	25	28	22	167	48
{ Titan .....	0.00021277	20.22	0.029	15	22	41	27	39	168	17
{ Hyperion .....	—	24.49	0.129	21	6	38	27	14	169	27
{ Japetus .....	0.00001000	58.91	0.028	79	7	56	18	28	142	12
{ Phœbus .....	—	215.00	0.220	546	12	0	174	9	220	0
{ Ariel .....	—	7.04	0.020	2	12	29	97	58	167	20
{ Umbriel .....	—	9.91	0.010	4	3	27	98	21	164	6
{ Titania .....	—	16.11	0.001	8	16	56	97	47	165	32
{ Oberon .....	—	21.54	0.003	13	11	7	97	54	165	17
Satellite of Lasselle...	—	14.73	0.007	5	21	2	142	40	187	25



Precisely the same relation is to be seen in the masses of Saturn's satellites :—

9th Sat. (Phœbus) 10'00 (?)	8th (Japetus) 10'00	7th (Hyperion) 100'00 (?)	6th (Titan) 212'77			
	5th (Rhea) 4'00	4th (Dionea) 1'87	3rd (Tethys) 1'10	2nd (Enceladus) 0'25	1st (Mimas) 0'07	Ring 1610'00

in units of the 6th decimal order of the planet's mass.

That is to say, the four outer satellites (9th to 6th), compared with the five inner ones (5th to 1st), show the same contrast that we have already noted between the four outer satellites of the Sun (Neptune to Jupiter) and the five inner ones (Mars to Mercury).

(i) As to length of revolution period round the central star—a period long in the case of the four outer satellites (from 21 to 546 days) and short in that of the five inner ones (1 to 4 days).

(ii) As to mass. That of the four first together is not equal to that of the smallest of the four last.

(iii) Their relative distances from the central star are defined by the same law as those of the planets, as we shall see later on.

Moreover, the mass of the largest satellite (Titan) is to that of Saturn (its Sun) as is that of Saturn to that of the Sun. The mass of Dionea is to that of Saturn approximately as that of Earth is to that of the Sun. Titan (the fourth satellite counting from without inwards) corresponds, in the Saturnian solar system, to Jupiter (fourth satellite of the Sun) in the primary system of the King Star.

17. Furthermore, Jupiter has four outer satellites and some inner ones (probably five, although at present we only know two or three). If we write the geometrical series 11, 22, 44, 88, we also write the respective masses of the first, second, fourth, and third, which are respectively 15, 23, 42, 88 millionths of Jupiter.

18. If we start, not from 11, but from 7, we have the series 7, 14, 28, 56, 112, 224, 448, which, with some suspicious gaps (perhaps for new satellites) gives us that of the small satellites of Saturn.

19. We do not yet know the masses of the four satellites of Uranus, but their periods of translations make, in place of

the series	2,	4,	8,	16,
the series	2'5,	4,	8,	13.

20. To complete these analogies let us recall the fact that Bode's famous and semi-cabalistic Law almost enabled us to prophesy the ring of asteroids before it was known. It can be applied to the satellites in the following way :—

Taking the number 6 (the sacred number which is the precursor of all synthesis, and starting from its larger divisor 3 (using the other divisor 2 as multiplier) we get the mother series,

0, 3, 6, 12, 24, 48, 96, 192, 384.

By adding four unities we have, according to Bode's classic Law, the series—

4, 7, 10, 16, 28, 52, 100, 196, 388,

which, as we know, gives, sufficiently closely, the respective distances of the planets from the Sun.

But if we add, not four but three unities, we get this other series—

3, 6, 9, 15, 27,

which hardly differs from the distances of Jupiter's satellites from their central star, viz.,

2.6; 5.9; 9.5; 15.1; 26.5.

If in place of three we add 2.5 to the primary series, we get

2.5; 5.5; 8.5; 14.5;

which hardly differs from the true distance of the satellites of Uranus, which are, in radii of their planet,

2.5; 4.3; 8.6; 13.1.

And if once more we write the natural numerical series

1, 2, 3, 4, 5, 6, 7, 8, 9,

we shall find that it differs but little from the small satellites of Saturn,

1.5 to 2.2	3.1	3.94	4.9	6.2	8.7
Ring.	Mimas.	Enceladus.	Tethys.	Dionea.	Rhea.

21. The following table shows the orbital revolutions of the different satellites:—

Typical Series	...	0.5	1	2	4	8	16 days.
Satellites of Jupiter.		0.5	—	2	4	8	16 "
" Saturn...		0.5	1 + 1	2, 3	4	—	16 "
" Uranus.		—	—	2	4	8	13 "

All these correlations indicate the possibility of new satellites of all the planetary colossi.

#### ASTRO-CHEMICAL CORRELATION.

22. Astronomy and chemistry are, from the numerical point of view, interlaced. We will only give some correlations of special interest.

23. The atomic weights of the halogens are arrived at pretty exactly by multiplying that of the first of the series (Fluorine) by two, four, and seven.

But if we write the halogen series

Fluorine, Chlorine, Bromine, Iodine,

and below,

Neptune, Uranus, Saturn, Jupiter,

(the four major planets) we shall find that the atomic weight of Bromine is half the sum of those of Chlorine and Iodine, and that the volume of Saturn is also half the sum of those of Uranus and Jupiter.

Moreover, in the series of the minor planets (Asteroids, Mars, Moon, Earth, Venus, and Mercury), we find that the greatest, the Earth, is equal to the sum of the volumes of the Moon and Venus, which respectively precede and follow it. Also the volume of the Asteroids, Mars, and Moon on the one side, and of Venus and Mercury on the other, are approximately equal to that of the Earth. Again, the volume of Mars is the mean proportional between those of Earth and Moon which follow it.

24. The numerical series of correlations which connect the atomic weights of the other simple bodies is known through Mendeleef's Law, and need not be repeated here.

25. The mass of Titan (the Jupiter of the Saturnian Solar system), that of all the small satellites together and that of the ring, also show a close resemblance to that of the respective volumes of Uranus, Saturn, and Jupiter; a clear indication that in the respective "solar" systems of the Sun, Jupiter, Saturn, etc., the small planets finally come to form the mass of one large planet, a matter of the highest import for the interpretation and adequate comprehension of the Stanzas of Dzyan and other Oriental traditions, which we discuss in the second part of this paper.

26. We have the further fact that the relation of the atomic weight of Lithium (the first and lightest of the metals) with that of Hydrogen (the first and lightest of the chemical elements) is measured by the abstract number 6.9, which number also measures the relation between the density of Mercury (first and densest of the planets) and Water (first and most essential of the natural bodies).

27. We also find that a litre of air under normal conditions of pressure and temperature weighs one-fifth of 6.5 grammes. A litre of hydrogen in similar conditions weighs  $\frac{2 \times 6.9^2}{100}$ , or one-fiftieth of  $6.9^2$  grammes. The density of liquid Hydrogen too is about one-fifth of 6.5 grammes.

28. To conclude, we find that Dulong and Petit's Law shows that in all simple bodies the product of the atomic weight by the specific heat is a constant—6.4

29. In agreement with these constant repetitions we find (*a*) that there are four exterior and five interior planets, with a ring of asteroids; (*b*) that in the systems of Jupiter, Saturn and Uranus there are four exterior and probably five interior planets (satellites); (*c*) that 6 is the root number of the fundamental series defining the distances of planets and satellites, and 4 the number which must be added to the said fundamental series to obtain those of the former.

The heavenly bodies are of three classes according as

*Third Class.*

They are dependent in a Laplacian sense on some other known body. Their physico-chemical proteism is practically *nil*. Without satellites.

*Second Class.*

They are dependent in the Laplacian sense on another known body. satellites. TYPES OF THIS SIXTH GROUP: Neptune, Uranus, Saturn, of the first department of the next table.

*First Class.*

They are not dependent in the Laplacian sense on any other known body. They have a considerable physico-chemical proteism. With satellites.

They are at present alone in their system.

They are numerous, forming a true system. Their masses always bear to each other the ratio of unity, or, at most, differ from this by  $\frac{1}{100}$ th part.

With movements which are distinctly orbital.

The satellite star is solid and dark.

... is still solid, but already luminous.

... is fluid and luminous.

The mass is gaseous or ultra-gaseous and nebulous.

Without apparent orbital movement or with very large orbit.

BODIES ACCORDING TO THEIR EVOLUTION.

The dependence is not well defined, and probably is of the 3rd or a higher degree. Their mass bears to that of the body from which they are derived a relation as of an atom to the Earth. TYPES OF THIS FIRST GROUP: Chemical molecules, meteoric stones, etc., nuclei of comets.

The dependence should be double or of the 2nd degree, but we only know the star from which it is directly derived. Their mass bears to that of the body from which they are derived a ratio approximately  $\frac{1}{10^{13}}$ . TYPES OF THIS SECOND GROUP: All the asteroids between Mars and Jupiter.

The dependence is double or of the 2nd degree, both the stars from which it is primarily and secondarily derived being known. Their mass bears to that of the central body a relation of about  $\frac{1}{10^{50}}$ , as the Earth to the Sun. TYPES OF THIS THIRD GROUP: Jupiter's satellites v., vi., vii.; the satellites of Saturn, 1-5 inclusive; the undiscovered satellites of Uranus.

The dependence is direct or of the 1st degree, only one body of origin being known, about a million times larger. TYPES OF THIS FIFTH GROUP: The inner planets from Mars to Mercury. Their mass bears to that of the central body a relation of approximately  $\frac{1}{10^{100}}$ , as in the case of Jupiter and the Sun. TYPES OF THIS FOURTH GROUP: The four largest satellites of Jupiter, 6th-9th (inclusive) satellites of Saturn, and all the known ones of Uranus and Neptune.

Their physico-chemical proteism, though slight, is demonstrable. With and Jupiter. IN ADDITION: The dark component of certain double stars

TYPES: The Sun, and the Stars which are not double.

Satellites of  $\beta$  Persei and of the 36 variables of this type. The 3rd dark star of the 4 in  $\zeta$  Cancri. The hypothetical star giving the juxtaposed spectrum in Nova Persei.

Satellites of Procyon and Sirius. Tikhoff's 4 stars with spectra as  $\beta$  Aurigæ. The 3 visible stars of  $\zeta$  Cancri, the companion of Capella, and the 2 secondaries of  $\epsilon$  Lyræ.

Satellites of  $\beta$  Lyræ,  $\epsilon$  Aurigæ, and  $\gamma$  Cygni. Conglomerates as  $\omega$  Centauri. Also Messier 3 and 5; also by extension, all as those in Præsepe and Coma Berenicé.

Is still dark. Nebulosities with spectra, as Nova Persei, Auriga, and Coma Borealis.

Is already bright. Nebulæ, as  $\theta$  Orionis, Canes Venatici, Lyra, and others catalogued as similar.

Directions parallel: Pleiades (nearly 2,000 stars); Hyades;  $\beta$ ,  $\gamma$ ,  $\delta$ ,  $\epsilon$ ,  $\zeta$  of Ursa Major; 61 Cygni;  $\alpha$  Geminorum; and the two principals in the  $\epsilon$  Lyræ system.

Directions divergent: 1,830 Groombridge; 21,185 and 21,258 Lalande.

30. After this we shall not be so much surprised by the six mythological dice of the God Bacchus which were made and unmade, nor by the thrice-void number, the 666 of various Gnostic traditions, nor at the preservation of the tradition of the number 7 as a *resumé* of six numbers or inferior units in one supreme or more perfect evolutionary series. The tradition of Atlantis preserved by the Brahmans and other more than prehistoric peoples, and their veneration for the grand number of the planetary mysteries, begin to find justification in modern science. It is the last homage that we can render to the wise originators of the allegory.

31. The specific heats of the rare earths will recall the figures of the volumes of the inferior planets.

32. In the work from which this is abstracted we discuss an evolutionary classification of the Stars, a first sketch, so to say, of a natural history of the heavens analagous in spirit to the early classifications of Linnæus, Cuvier, etc.

33. This classification shows the weakness of the merely kinetic arguments which have hitherto continued the confusion between the two classes of planets. In it, in addition to these kinetic considerations, due importance is given (*a*) to Laplacian relations, or evolutionary dependance; (*b*) to physico-chemical "proteism"; (*c*) to the subordinate stars or satellites; (*d*) to the relations of mass, the values of which increase from the infinitesimally small bolides to the limiting unity that is to be observed between the components of double stars (pp. 292-293).

34. The classification also includes an evolutionary study of these systems, and for the first time, so far as I know, makes an evolutionary bridge between suns and planets, and establishes (*a*) the difference between suns whose movements are clearly orbital (first stage of their evolution) and suns which lack such movements, or have only millennial orbits (second stage); (*b*) their various stages of progress from the moment when the satellite star is solid and dark (almost like our Jupiter), or solid but already luminous; or when it comes to be fluid and luminous, to end in a state of synthesis with its companion star to form the nebulæ of the heavens, which are perhaps a final rather than a primary state of matter.

35. As regards the planets, the classification perceives possible future serial correlations, and confirms, so far as they appear to be true, the curious theories of Drs. Lee and Darwin (junior), and the ingenious ideas of Tourner on the dark stars, on the movements of comets in orbits not of conic section, and what he calls "Sidereal Ganglia" of the Milky Way, or spinal marrow. It further reduces to the category of double stars all those hitherto held to be variable or temporary.

36. From all these considerations results the evolutionary subordination of the Great to the Small; man and the atom as collaborators in the Cosmic work, the "all work together" of the philosopher.

37. We thus arrive at the conclusion that all the stars of the firmament are either suns or on the way to become so, which would lead in the future to the total spiritualisation, so to say, of the heavens.

38. Furthermore, a sketch is given of the reasons that exist for believing that all the planets within the ring of asteroids are destined either to disintegrate or to fall together, and in either case to form from their remains one great planet between Jupiter and the Sun. The Zodiacal Light is the astral track, if the phrase be allowed, of its future orbit. One of these, the first, has already disintegrated (the producer of the asteroids). The second, Mars, shows in its so-called canals the cracks which are the precursors of its disintegration, in a more advanced stage than the Moon (the third) with its cracks, and even the Earth, with its abysmal ocean-cracks. Venus and Mercury, the fifth and sixth of the series, wait their evolutionary turn after the Earth.

In the end the Moon will fall on the Earth, as also the meteoric remains of Mars, and the asteroids, in the form of a rain of shooting stars. Mercury will fall into Venus, and finally Venus and the earth will form one body. The great planet thus formed will be the sixth of the series of the Great or Exterior Planets, which also have, to all appearances, a ring of asteroids beyond Neptune.

39. Later these great planets will unite in their turn in an analagous way, forming a satellite Sun, the companion of the present Sun, which will thus become a double star like almost all those that shine in space. A later synthesis will give place to a Nebula, like those we know, which is the close of the solar cycle, and reduces the density of matter to its minimum and inversely the potentiality of energy to its maximum.

40. Another corollary is that the white suns are older than the yellow, and these older than the red. Thus, so far from being extinguished, the solar energies are on the increase, and may reach such a stage that they are too luminous to be visible to us.

41. In proof of such assertion, Mendeleeff's baro-atomic series is appealed to; but as this is not sufficient by itself to define chemical correlation it is presented in a modified form and in colour, in the following diagram, as the basis of the true chemical families and of the whole history of the Earth.

42. Our diagram introduces important modifications into the classic chart of Mendeleeff (p. 297).

(a) It shows the simple bodies arranged in inverse order, *i.e.*, from that of the greatest to that of the least atomic weight, in accordance with our idea that such is the process of astronomical evolution.

(b) We have taken into account the intimate correlations among various metals which occupy distinct sections in Mendeleeff's chart, such as the families of the osmio-auroids or platinoids, those of palladium, and the ferroids and cuproids.

(c) We have employed a method of eight distinct colourings (including black and white) as are shown on the chart. This simple expedient seems to clear up some difficulties and to reconcile the theories of Mendeleeff and his opponent, for even if, as Meyer shows, the physical properties of the simple bodies are a periodic function of their atomic weights, their chemical properties require, for their correct explanation, our formula, which may be expressed as follows: "In astro-chemistry there coexist seven distinct evolutions in harmony with what we see in the stars, viz., the meteoritic, or Red, of the heavy metals (and perhaps of the dense nucleus of the earth, which was originally an asteroid); that of the transition, or Orange, now partly dislocated, represented by glucinium, aluminium, and radium, an evolution which, with its radio-activity and that of its neighbours, is perhaps a testimony to the most profound crisis in the integration of the earth or disintegration of the extra-Martian planet, now disappeared; the typical Yellow of the earth, which is a witness to the present earthly stage, and that of silicon and the silicates which preceded it; that of the Transition, very obscure, and represented by the rare earths, with boron at their head; the Blue one of the noble gases, still inert, at least in appearance; the Violet, blank or perhaps symbolised in helium, a gas which has given rise to a most interesting type of stars in the galaxy; the White, which possibly includes hydrogen and the (?) prohydrogens, coronium and nebularium, very characteristic of the sun and of the majority of the stars and nebulae.

For the sake of brevity we omit the examination of the horizontal and vertical dislocations shown in our chart, as well as of the prophecies, which may be logically deducted concerning the new bodies which spectrum analysis will have to find later on in the sun, if not in the vacuum of radium. Between boron and lithium seven bodies seem in fact to be wanting.

#### 43. *Summary.*

The foregoing argument seems to show the co-existence in our solar system of three distinct evolutions.

1. The Solar, which leads the Sun from its primitive category of a dark star, subordinated as a planet to some centre as yet unknown, to the category of a white sun, like Sirius, through a past red evolution and its present yellow evolution.

2. That of six Great Planets (type Jupiter) to form in the future a satellite-sun.

3. That of six small planets (type Earth) to form in the future the sixth Great Planet, which is still wanting to the previous series.

With these concrete data we can now examine the Traditional Doctrine, which, as we shall see, contains identical teaching.

?	?	?	?	?	?	?	?
?	?	?	?	?	POLONIUM?	?	?
?	?	URANIUM 240	?	?	THORIUM 230	?	?
?	?	?	BISMUTH 208	PLUMBICUM? 207	THALICUM? 204	LEAD	AUROSUM? THALIOSUM? MERCURY 200
?	AURICUM? OSMIUM, IRIIDIUM, PLATINUM 196-198	TUNGSTEN 184	TANTALUM 182	?	ERBIUM 178	?	?
?	?	?	?	?	RADIUM	?	?
?	?	?	?	?	CERIUM, LANTHANUM DIMIDIUM 138-140	BARIUM 137	CAESIUM 133
XENON 128	IODINE 127	TELLURIUM 125	ANTIMONY 122	TIN 118	INDIUM 113	CADMIUM 112	SILVER 108
?	ARGENTICUM? RUTHENIUM, RHODIUM, PALADIUM 104-106	MOLYBDENUM 96	NIOBIUM 94	ZIRCONIUM 90	YTRIUM 88	STRONTIUM 87	RUBIDIUM 85
CRYPTON	BROMINE 80	SELENIUM 78	ARSENIC 75	GERMANIUM 72	GALLIUM 68	ZINC 66	CUPROBISMUTH 63
?	CUPRICUM? NICKEL, COBALT, IRON 56-59	FERRICUM? CHROMIUM, MANGANESE 52-55	YANDANIUM 51	TITANIUM 48	SCANDIUM 44	CALCIUM 40	POTASSIUM 39
ARGON	CHLORINE 35	SULPHUR 32	PHOSPHORUS 31	SILICON 28	ALUMINIUM 27	MAGNESIUM 24	SODIUM 23
NEON	FLUORINE 19	OXYGEN 18	NITROGEN 14	CARBON 12	BORON 11	?	?
?	?	?	?	?	GLUCINIUM 9	?	LITHIUM 6-9
HELIUM	HYDROGEN 1	?	?	?	CORONIUM NEBULIUM	?	?

RED  VIOLET  BLUE   
 ORANGE  GREEN  YELLOW 



## PART II

## THE STANZAS OF THE BOOK OF DZVAN.

“ . . . Each of the planets—of which *seven only* were called sacred, . . . is a septenary, as also is the Chain to which the Earth belongs ” (S.D., i. p. 176).

If the preceding ideas are correct, they will reveal astonishing agreements with Traditional Science, of which our master, H. P. Blavatsky, has said :—

“ . . . The system in question (ancient cosmogony) is no fancy of one or several isolated individuals ; . . . it is an uninterrupted record, covering thousands of generations of seers, whose respective experiences were made to test and verify the traditions, passed on orally by one early race to another, of the teachings of higher and exalted Beings, who watched over the childhood of Humanity ; that for long ages, the ‘ Wise Men ’ of the Fifth Race, of the stock saved and rescued from the last cataclysm and the shifting of continents, passed their lives *in learning, not teaching*. How did they do so ? It is answered : by checking, testing, and verifying, in every department of Nature, the traditions of old, . . . ” (S.D., i. p. 293).

“ The study of the hidden meaning in every religious and profane legend, of whatsoever nation, large or small, and pre-eminently in the traditions of the East, has occupied the greater portion of the present writer’s life. She is one of those who feel convinced that no mythological story, no traditional event in the folk-lore of a people, has ever, at any time, been pure fiction, but that every one of such narratives has an actual historical lining to it ” (S.D., i. p. 321).

“ The proofs brought forward in corroboration of the old teachings are scattered widely throughout the old scriptures of ancient civilisations, . . . but no one has ever taken the trouble of collecting and collating them together ” (S.D., i. p. 325).

“ The Secret Doctrine is scattered through the scriptures of the great Asiatic and early European religions, hidden under glyph and symbol ” (S.D., i. p. xx.).

“ There *was* a ‘ primeval revelation,’ and it still exists ; nor will it ever be lost to the world, but will reappear ; . . . ” (S.D., i. p. 14).

This “ revelation ” was largely astronomical, and dated from the people of Atlantis. It has remained written in allegory, and in its essential part refers chiefly to the evolutionary laws of the Sun, the large and the small planets, as we shall shortly show.

One of the most fundamental conclusions of our work in the press, already referred to, is the proof of the series of the six planets within the ring of asteroids (the vanished planet between Mars and Jupiter, Mars, Moon, Earth, Venus, and Mercury). Let us indicate the points of agreement :—

“To thoroughly comprehend the idea underlying every ancient Cosmology necessitates the study and comparative analysis of all the great religions of antiquity. . . . The original, transcendental, and philosophical conception was one. . . . It ‘gradually became veiled by the overgrowth of human fancy’” (S.D., i. p. 457).

“. . . The Pythagoreans asserted that the doctrine of Numbers, the chief of all in Esotericism, had been revealed to man by the Celestial Deities” (S.D., i. p. 467).

“In the beginning of Time, after the Elohim . . . had shaped out of the eternal Essence the Heavens and the Earth, they *formed the worlds six by six*” (*Siphra Dtzenioutha*, S.D., i. p. 259).

This is the equivalent of the assertion in our thesis of the principle that each large planet of the Neptune-Jupiter series (Asteroids beyond Neptune, Neptune, Uranus, Saturn, Jupiter, and Planet X (or future) ) is formed by six small ones, thus forming the seventh, the synthesis or crown of the series of every six of these.

This phenomenon is proved in the case of the satellites, as we have already seen.

To this alludes the mystery of the six dice of Bacchus, which were unmade (series of small disintegrating planets) and made (final or septenary synthesis) alternately.

To this, too, alludes the Græco-Egyptian allegory of Saturn devouring his children (the small planets), which formed his great planetary mass.

To this, lastly, the following quotations :—

“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, . . .” (S.D., i. p. 628).

Here is the key. The three which, *being now passed by by evolution, cannot be named as live stars*, are : the vanished planet, Mars, and the Moon, three physical globes that preceded the Earth. Saturn is put in place of this, for Cabalistic purposes ; Venus and Mercury follow, and Jupiter is put in place of its homologue, the future Planet X (Mercury-Buddha or synthesis of the terrestrial series).

“According to esoteric teaching there are seven Primary and seven Secondary ‘Creations’ ; . . .” (S.D., i. p. 481).

That is, those of the series of the small and of the large planets.

“ . . . The importance attached to the number *seven* throughout all antiquity was due to no fanciful imaginings of uneducated priests, but to a profound knowledge of Natural Law ” (S.D., p. 497).

That is, of the Evolutionary law which presides over our planetary system.

“ The number seven is the great number of the divine Mysteries ” (Kabalah) (S.D., i. p. 68),

or of the formation of the planets.

Semele, the wife of Jupiter and mother of Bacchus, symbolises the astral track (Semen, Semilla) of the future Planet X between Mars and Venus :—

“ She is carried to heaven after her death, where she presides between Mars and Venus, under the name of the ‘ Queen of the World,’ . . . at the name of which all the devils tremble. . . . Pindar sang her ‘ assumption.’ . . . She sits at the right hand of her Father (Jupiter), . . . and is more powerful (*the future planet is greater*)<sup>1</sup> than all the other (Angels or) Gods. . . . The Sun-chief (*the final mystery of the Satellite-Sun, composed of all the Great Planets*) lives in thee and thou in him ” (St. Bernard) (S.D., i. p. 431).

“ Casta fove Lucina, tuus jam regnat Apollo ” (Virgil, quoted S.D., p. 431).

“ . . . The Sephirothal Tree, as also the ‘ Tree of the Knowledge of Good and Evil ’ . . . ‘ hath around it seven columns,’ or palaces, of the seven creative Angels operating in the Spheres of the seven Planets on our Globe ” (S.D., ii. p. 4).

“ Said the Earth : ‘ Lord of the Shining Face (*the Sun*), my House is empty. . . . Send thy Sons to people this Wheel. Thou hast sent thy Seven Sons to the Lord of Wisdom (*the great planet*). Seven times doth he see thee nearer to himself, seven times more doth he feel thee. Thou hast forbidden thy Servants, the small Rings (*the Earth series*), to catch thy Light and Heat (*supersensible*), thy great Bounty to intercept on its passage. Send now to thy Servant the same ’ ” (S.D., ii. p. 15, Stanza i. 2).

“ Said the Lord of the Shining Face : ‘ I shall send thee a Fire when thy work is commenced. Raise thy voice to other Lokas ; apply to thy Father, the Lord of the Lotus (*the Great Planet*), for his Sons (*the inferior Egos of the superior Egos, who are the natural inhabitants of the Great Planets*). . . . Thy People shall be under the rule of the Fathers. Thy Men shall be mortals. The Men of the Lord of Wisdom (*the Deity of the Great Planet*), not the Sons of Soma (*Moon-Earth series*) are immortal. Cease thy complaints. Thy Seven Skins (*planets of the astronomical series, and also geological periods*) are yet on thee. . . . Thou art not ready. Thy Men are not ready ’ ” (S.D., ii. Stanza i. 3, pp. 15, 16).

“ The Sons of Wisdom, the Sons of Night, ready for rebirth, came down ” (S.D., ii. 20).

<sup>1</sup> Author's comments printed thus.

“The Fires (*Egos of the Great planet*) with the sparks (*inferior Egos for the small Earth planet*). The Night Fires (*planets*) and the Day Fires” (*highest Egos related to the Sun (Dhyans)*) (S.D., ii. p. 17).

“The Lha (*Planetary Spirit*) which turns the fourth (*Earth*) is the Servant of the Lhas of the seven” (S.D., ii. p. 25).

“Thou hast sent thy Seven Sons to the Lord of Wisdom. This is Mercury-Buddha” (S.D., ii. p. 31).

If these texts were not sufficient to proclaim as traditional the planetary distinction for which we are arguing we might adduce many others.

There are some paragraphs in the “Secret Doctrine” which, badly interpreted, as they usually are, lend themselves to great confusion, which might bring about the loss of this precious astronomical key.

Take for example the following paragraph (S.D., i. pp. 626-7) :—

“There are only seven planets *specially* 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 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.”

At p. 129 is added in a note :—

“ . . . Whereas there are many yet undiscovered planets in our system, Neptune does not really belong to it, in spite of its *apparent* connection. . . .”

“ . . . The planets were all comets and suns in their origin ” (S.D., i. p. 129).

And on p. 629 it is said :—

“ . . . Only seven of our planets are as intimately related to our Globe, as the Sun is to all the bodies subject to him in his system.”

This last seems to mean, in our opinion, that seven planets (six small and one large) are those which are most concretely or immediately related to our globe. We have already given their names (Extra-Martian planet, now disintegrated, Mars, Moon, Earth, Venus, Mercury, and the Great Planet, the future twin of Jupiter). The relation is the more concrete and immediate inasmuch as, in point of fact, the human monads and inferior egos inhabit these dwelling-places in succession during the rounds or cycles of a small Kalpa. Therefore, with respect to this evolution, which is what affects us most nearly, they and no others are those which, as the master says, “are most related to our globe.” The “twelve houses” is a beautiful indication of these six inferior dwelling-places and of the other six, which make, slowly, so to say, the Great future planet at the expense of the six stages of the

evolution of the inferior planets and of the other six stages of the corresponding evolution of our superior Ego, which in an essential and direct way contributes to the ultimate formation of that.

As the Great Planet is the unborn, the unpronounceable, the —, its twin and predecessor, Jupiter, was substituted for it, for esoteric, numerical, and cabalistic purposes. (“The Wheels watch the Ring, . . .” S.D., i. p. 63, stanza v. ver. 6.)

There remains only the doubt as to the substitution of Earth for Saturn with the same esoteric objects, as we said before in commenting on the stanza; but the difficulty is not great. In fact, our Western numerical studies have established for us the two often repeated series:—

Great Series	...	Asteroids	Neptune	Uranus	Saturn	Jupiter	X.
Small Series	...	Asteroids	Mars	Moon	Earth	Venus	Mercury.

So that the substitution of the Earth for Saturn was equivalent in Kabbala to exchanging one evolution for the other, preserving always the *planetary position*, which is the fourth both for Saturn in the Great Series and for Earth in the small one. The correspondence of Uranus and Neptune with the three anterior planets of the small evolution (“which should not be named”) leaves them logically outside of any occult or astrological relation to the Earth, as the text says; which, however, does not prevent the Sun “being related to all the bodies of his subject system,” and that they will have to form by evolution (including Uranus and Neptune) his future companion or Satellite-Sun, like those which we see in the firmament.

The “many planets to be discovered in our system” we have already indicated with sufficient probability—viz., five interior satellites of Jupiter (of which three have been discovered since the publication of the “Secret Doctrine”); the third satellite of Saturn (No. 1 of the Great Satellites of this star); the other five interior satellites of Uranus; the numerous asteroids beyond Neptune, and those which still remain between Mars and Jupiter; the six satellites to which in the future the sextuple meteoric ring of Saturn will be converted, and the six which in very remote times will be formed from the equatorial bands of Jupiter, which the author, from certain indications, believes to be also meteoric. This is not reckoning the fifth and sixth Great Satellites, the synthesis of the small ones, for each of the planetary colossi, and the future Planet X. In other words, a total of planets easy of theoretical calculation by the number  $6^6$ , since according to our theory each Satellite-Sun or double star is made up of six great planets, and each of these by six small ones (which presupposes thirty-six small planets, past and present). Moreover, as the Kinetic-Solar argument is repeated in the case of the great planets, each of these comes to reproduce by evolution six Great Satellites of

the type of Ganymede and Titan, and these satellites are each formed by the synthesis of six small satellites of the type of Dionea and Tethys. I think that what I have said is sufficient to explain the innumerable evolutionary positions, so to say, which will be presented from the remote appearance of the first small planet of the now dead planet beyond Neptune to the total disappearance of the five Great Planets and Planet X (Mercury-Buddha) and their integration into the mass of the Satellite-Sun.

The series of sixes is to be found passim in the "Secret Doctrine." On page 451, for instance, there is a clear allusion to the six small planets (Titans) of Saturn, analagous to the six planets of the Mars-Mercury series which have, in the same way, to form the future planet.

"These . . . Titans, . . . which were once upon a time numbered as only six, have been recently discovered in an old fragment . . . to be *seven*, the seventh being called Phoreg,"

who, in fact, fulfilling a prophecy of destiny, dethroned his father Saturn—that is, expelled him from his position of Greatest Planet, and nearest to the King-Star.

Our theory of the aggregation of the masses of the small planets by sixes to form the great planets is to be found in the following phrases:—

"The Central Sun (*of each system*) causes Fohat (*the breath of evolution*) to collect primordial (*meteoric*) dust in the form of balls, to impel them to move in converging lines and finally to approach each other and aggregate. . . . Being scattered in Space, without (*apparent*) order or system, the World-Germs come into frequent collision until their final aggregation. . . . Then the battles and struggles begin. The older attract the younger, while others repel them. Many perish, devoured by their stronger companions. Those that escape become worlds" (S.D., quoting "Book of Dzyan," i. p. 222-3).

Hence the war in heaven, of the Puranas; the Titans; the Egyptian Osiris and Typhon; the Scandinavian battle of the flames; that of Indra and the Asuras with Vritra or Ahi; or of Michael and the Dragon; or finally of Jupiter and Lucifer Venus (passage condensed from S.D., i. p. 223).

The same idea that we are urging is stated in the "Ancient Commentary," transcribed on pp. 126-7, S.D., vol. i. :—

"Eight houses were built by Mother: eight houses for her eight Divine Sons, four large and four small ones (*the six, the seventh, or planetary synthesis, and the eighth, or that of the Sun, as centre*). . . . Eight brilliant Suns, according to their age and merits. Bal-i-lu [Mârttânda] was not satisfied, though his house was the largest. He began [to work] as the huge elephants (*Planets*) do. He breathed [drew in] into his stomach the vital airs of his brothers. He sought

to devour them. The larger four (*Great Planets*) were far away ; far, on the margin of their kingdom. They were not robbed [affected], and laughed. Do your worst, Sir, you cannot reach us, they said. But the smaller wept. They complained to the Mother (*the Great Fire, the invisible sun, of which ours is the planet*). She exiled Bal-i-lu to the centre of her kingdom, from whence he could not move (*the region of the Zodiacal light*). [Since then] he [only] watches and threatens. He pursues them . . ." (S.D., i. pp. 126-7).

The order of appearance of the small planets of the Earth Series is given in verse 3 of stanza vi. :—

"Of the Seven, first One manifested, Six concealed ; Two manifested, Five concealed ; Three manifested, Four concealed ; Four produces, Three hidden ; Four and One Tsan revealed, Two and One Half concealed ; Six to be manifested (*the six of the series*), One laid aside (*the synthesis*). Lastly, Seven Small Wheels (*six small and one great*) revolving ; one giving birth (*transmitting their humanity*) to the other" (S.D., i. p. 163).

"Make thy calculations, O Lanoo, if thou wouldst learn the correct age (*the evolutionary point*) of thy Small Wheel. Its Fourth Spoke is our Mother (*Bummi, Gea, Terra*). Reach the Fourth Fruit of the Fourth Path of Knowledge (*ratiocination*) that leads to Nirvana, and thou shalt comprehend, for thou shalt see (*will obtain the astronomic key, one of the seven of the mystery*)" (S.D., stanza vi. v. 7, vol. i. p. 226).

The reasons that we gave in the first part of this paper to show that the Moon is a planet anterior to the Earth rather than its satellite, are corroborated in the following beautiful paragraph :—

"In reality the Moon is the satellite of the Earth in one respect only, viz., that physically the Moon revolves round the Earth. But in every other respect, it is the Earth which is the satellite of the Moon, and not *vice versâ*. Startling as the statement may seem, it is not without confirmation from scientific knowledge. . . . But, so far as Science knows, the Earth's action on the Moon is confined to the physical attraction, which causes her to circle in her orbit. And should an objector insist, that this fact alone is sufficient evidence that the Moon is truly the Earth's satellite . . . one may reply by asking whether a mother who walks round and round her child's cradle, keeping watch over the infant, is the subordinate of her child or dependent upon it? Though in one sense she is its satellite, yet she is certainly more fully developed than the child she watches" (S.D., i. pp. 202-3).

With regard to Mercury, the sixth and last of the series of small planets which the evolution of inferior humanity is called on to traverse, its position as transition-star to the Great Mysteries of the great seventh planet gives it an exceptional importance in allegory, as the following quotations show :—

"Mercury (*the alchemist in whose retort the lead of the inferior planets is transformed into the gold of the Great Planet*) has to be ever near Isis (*the Mother,*

*the primordial planetary matrix*) as her *minister*, for without Mercury (*the evolutionary link*) neither Isis nor Osiris (*the Sun*) can accomplish anything in the Great Work" (quoted in S.D., i. p. 417).

"Mercury, as an astrological Planet, is still more Occult and mysterious than Venus. It is identical with the Mazdean Mithra, the Genius, or God, 'established between the Sun and the Moon, the perpetual companion of the "Sun" of Wisdom.' Pausanias (book v.) shows him as having an altar in common with Jupiter. He had wings to express his attendance upon the Sun in its course (*or rather that in his bosom evolution soared to higher orders*), and he was called the Nuntius and the Sun-wolf, '*solaris luminis particeps*.' He was the leader and evocator of Souls, the Great Magician and the Hierophant. Virgil depicts him as taking his wand to evoke from Orcus the souls plunged therein—*tum virgam capit, hac animas ille evocat Orco*. He is the Golden-coloured Mercury, the χρυσοφαής Ἑρμῆς whom the Hierophants forbade to name. He is symbolised in Grecian mythology by one of the 'dogs' (vigilance), which watch over the celestial flock (Occult Wisdom), or Hermes Anubis, or again Agatho-dæmon. He is the Argus watching over the Earth, mistaken by the latter for the Sun itself. It is through the intercession of Mercury that the Emperor Julian prayed to the Occult Sun every night; for, as says Vossius :

"'All the theologians assert that *Mercury and the Sun are one*. . . . He was the most eloquent and most wise of all the Gods, which is not to be wondered at, since *Mercury is in such close proximity to the Wisdom and the Word of God* [the Sun] that he was confused with both'" (S.D., ii., pp. 31-2).

This pre-eminence of Mercury is not surprising, as not only is it the sixth and last of the small planetary series, but the beginning, so to say, of the seventh Great Planet, the last superior planet lacking to form the components necessary for the also future Satellite-Sun, on which we have already given sufficient explanation in previous passages.

In view of these sublime agreements of astronomical science with Archaic Doctrine, let us reverently say, with Confucius, "I believe and love the ancients." They have indeed transmitted to us in allegory the purest teaching of the Science of Urania.

### PART III.

#### COSMIC STATICS.

##### The Mahakalpa and the objective worlds.

"Everything . . . is septenary . . . every planet is credited with six companion globes" (S.D., i. p. 182).

"The Law of Analogy is the first key to the world-problem, and these links have to be studied co-ordinately in their Occult relations to each other. . . ." (S.D., i. p. 662).



The "other worlds"—

are, as it were, blended with our world—*interpenetrating it and interpenetrated by it* . . . that millions of things and beings are, from the point of view of localisation, around and *in* us, as we are around, with, and in them. This is no mere metaphysical figure of speech . . . however incomprehensible to our senses" (S.D., i. p. 662).

Astronomy teaches us—

1. That the Cosmos (astronomical unit of the 1st order) is formed by the Galaxy (Milky Way) and by other masses, which, as the Clouds of Magellan, do not belong to the Galaxy.

2. That the Galaxy (unity of 2nd order) is formed of nebulous bodies and conglomerations of Suns.

3. That each of these Groups (units of 3rd order) consists of several Suns, united by the link of a common origin (*Cf.* the movement of the Sun towards  $\alpha$  Lyræ).

4. That every Sun (unit of the 4th order) is surrounded by a court of Great Planets (type Jupiter or the thirty-six satellite bodies of the Stars of the Algol type).

5. That each Great Planet (unit of the 5th order) is the integration into one of six small planets like the Earth (see "Solar Evolution and Astro-Chemical" Series).

6. That every small planet (unit of 6th order) is, has been, or will be the centre and abode (our Earth at least, if we set aside the traditional doctrine) of various corporeal beings, among which stands out pre-eminently the body of man.

And the other natural and philosophical sciences continue the series by showing—

7. That in the body of man (unit of the 7th order), just as on the surface of the Earth, there appear, as though in a world of their own, various entities or bodies of animal beings, revealed and governed by their respective instincts. [We knowingly commit an anachronism in speaking of the body of man which we know in place of the body of Man which we do not yet know. Occultists will understand.]

8. That the various parts of the animal body (unit of the 8th order), like those of man and the Earth, show true vegetable organisms in the circulatory, nervous, glandular, etc., systems.

9. That the various parts of the vegetable body (unit of the 9th order) consist of mineral substances of the kingdom formerly called inorganic and organic, now synthesised by the chemist Berthelot into one.

10. That the various minerals (units of the 10th order), like those of the beings of superior orders, consist of cells like the vegetables,

animals, and man. (Investigation of Schrön and Bose on the petrographic cells.)

11. That every cell consists of geometrical crystals in their plasm, crystals typical for each integrating chemical substance.

12. That every crystal (unit of 12th order) is composed of atoms, which form simple or complex molecules.

13. That every atom (unit of the 13th order) is made up of electrons. (W. Crookes, Arrhenias, etc.)

14. That every electron (unit of the 14th order) is nothing but ether in a particular state of concretion or condensation.

15. That the said ether (unit of the 15th order) occupies all space, is perfectly elastic and imponderable for our science, and penetrates all physical bodies (producing, we may add, definite ultra-chemical combinations which determine life and the dissociations originating physical death).

16. That the said material ether is (S.D.) the physical manifestation of the cosmic ether (*Pater omnipotens Æther*), endowed at once with life, mind, psyche and volitional energy, or, in a word, with the seven principles which also animate man. By means of them it fertilises and vivifies the primary physical unit of the Cosmos, which we may take as our starting-point.

#### PART IV.

##### COSMIC OR MONADIC DYNAMICS.

“Try to solve the problem of 777 incarnations . . .” (S.D., i. p. 191).

“‘Seven times seventy-seven lives’ . . . to be passed, on Earth” (“Book of the Dead”) (S.D., i. p. 257).

“A guiding angel directs each planet” (Kepler) (S.D., i. p. 579).

“The unity and mutual relations of all parts of the Kosmos . . .” (S.D. i. p. 520).

The great philosopher of Koenigsberg has said :—

“I confess I am much disposed to assert the existence of immaterial natures in the world, and to place my own soul in the class of these beings. It will hereafter, I know not where, or when, yet be proved that the human soul stands even in this life in indissoluble connection with all immaterial natures in the spirit-world, that it reciprocally acts upon these and receives impressions from them” (Kant, “Traume eines Geistersehers”) (S.D., i. p. 158).

The difference which separates positive modern Science from that of the East, or the traditional, consists only in this—that the latter, based on

the loftiest principles of reason and philosophy, attributes to all the beings of our objective universe seven analogous transcendental principles discoverable in man, as may be seen in innumerable passages of the S.D. What really occurs is that in the physical, as in the mental and the spiritual worlds, each order is the organisation, synthesis, and ultimate evolutionary end of the corresponding principles of the order immediately inferior.

Even in the physical world we have seen that every star-body is a synthesis of other stars of the order immediately below. The Cosmos, for example, of the Galaxies, the Galaxies of the Nebulæ and conglomerated Suns; these of the Suns, etc., etc. Analogy extends the consideration to other orders, or rather to superior and hyperphysical planes.

Hence the double dynamogenic linking not only of the bodies but of the respective lives.

Taking man, for example, we have the following words of the master:—

“We may also here point out . . . that the classification mentioned (Taraka Raja Yoga) . . . is . . . for all practical purposes connected with Raja Yoga, the best and simplest. Though there are seven principles in man, there are but three distinct Upadhis (Bases), in each of which his Atma may work independently of the rest. These three Upadhis can be separated by an Adept without killing himself. He cannot separate the seven principles from each other without destroying his constitution” (S.D., i. p. 182).

These four Upadhis, as is shown later, are (*a*) Atma; (*b*) Buddhi; (*c*) causal plane with the inferior mind and the Kamarupa; (*d*) the astral body with Prana and Sthula.

We find the teaching the more logical in that the said four Upadhis seem to us to agree with the four orders which follow, so to say, our headings, viz., (*d*) the terrestrial, (*c*) that of the series of inferior planets (Mars-Mercury), to which the Earth belongs, (*b*) the future Planet X, sixth of the series of Great Planets, (*a*) the future Satellite-Sun which in course of time these six have to form. It is clear that as these four orders are radically distinct and progressively perfect, an Adept can work consciously in any of them. In reality, every man, the larva of the future man, also works continually, although more weakly, and unconsciously, in them.

His whole hemicycle of return upwards (discarnation) seems to have for its object to make the sublime task easier and easier, and he seems to continue to use it with increasing ardour in his successive incarnations, until he attains the full creative consciousness of an Adept. The writer formulates his assertions with a double and natural fear, both of making mistakes in such sacred matters, and of revealing keys which ought perhaps still to remain hidden. With this warning we will add that the hemicycle of return upwards, or discarnation, of man seems to have as its chief object the

carrying over successively to these superior orders of the fruit, great or small, of his work and progressive experiences, indispensable for the progress of the Great Whole and its various serial or successive organisms.

Thus man at his first death loses his body and physical prana, remaining in five principles only. He is then, though temporarily, an inhabitant of Soma, or in Western language, of the planetary pair Earth-Moon, or rather of the astral region which now unites both stars, as it will unite them physically to-morrow when the two form one Star.

It is at the second and sweet death of the man that he really gets rid of all his Sthula of the Taraka classification, that is, of his astral body, to enter into the devachanic or mental world, which is of the lower series or planetary combination which began long ago beyond Mars ("Ring Pass not") and will end, æons of ages later, with the planet Mercury.

Just as he will bring to the lunar-terrestrial region the fruit of his lower astralities, so will he bring to this sublime region the fruit, be it more or less, of his preceding terrestrial work. Nothing related to his old "egoisms" passes to it, but what does pass is all his altruistic work, *that which in the course of time creates worlds.*

Thenceforward he lives in the Karana-Sharira, which is gradually exhausted, until at the last moment he touches the causal plane, suffers a third death or transformation on touching the Great Life, the abstract order where are planned with increasing vigour the lines of the new and Great Planet, the Supreme Synthesis of all the abstractions of the sub-wheels and of their infant beings. There, on that lofty plane where the Adept consciously lives, he falls into the logical unconsciousness presupposed by the usual want of preparation during the Earth-life. There too occurs the last contact, the tangent point, as a geometer would say, of the symmetrical cycles of the two human Egos, the higher, who has been descending in cycles to the reach of the lower, who has ascended in order to receive from him in this ineffable moment the apotheosis of every Earth-life, the treasure of his contribution to the great work of the S . . . the unpronounceable, of him who fell into the bonds of matter (Maya), to raise it to higher lives.

The highest Adepts go further, and they, in union with those of the great outer planets, are conscious on the Buddhic plane where, aided from the Sun, the Atma of the system, they contribute to the formation of the Satellite-Sun . . . the prologue of the future Nebula . . . of the future Galaxy . . . of the future Cosmos. Such is the Series of series, such seems to be the lofty secret of the 777 incarnations which the Master tells us to study.

After these reflections, one can already see more clearly the problem of reincarnation on one side and the possibility of emancipation from it on the other.

Man has, in fact, seven principles, but is at the same time bound by them as a part of successive astronomical units which are superior to him and await, for their final development, the fruit of his human labour (Humanity-Earth). His Egoisms bind man to his own particular evolution, his altruisms to the great destinies of the sublime Entities who are over his head. Although both the factors, Egoism and Altruism, march, like all the Cosmos, along the path of progress, their respective tendencies must have antagonistic results, because the rate of progression of the second is almost seven times as great as that of the first, since it refers to the evolutionary progress of a cosmic entity (the Earth as planet) of immediately higher grades; and hence the exceptional importance of this indispensable virtue, apart from the greater risk the egoist runs of suffering absolute or relative retrogressions in the march of the flock.

Hence the man preponderatingly altruistic applies his activity in his higher principles, which, at their highest, are in the end the same as those of the Earth. Thus while the ordinary man in his physico-astral progress contributes at most to the physical terrestrial progress, the mentalist contributes to the progress of the pair Earth-Moon or to the sum of the lower series, while the genuine altruist, the renouncer (or buddhi), causes to progress, and brings nearer similar results in the solar system, a lofty work, worthy only of the human Titan, the son of Atlas, bearing on his shoulders the weight of the world.

The upward progress of the series of more and more synthesised units being thus consecrated by the altruist, he comes finally to emancipation, by the very fact of this progressive march, of those of his inferior analytic units which after a much longer period contribute to that objective. Thus, while one resembles a live fire (hence perhaps their name of "Flames"), the other is more like a slow or hidden fire, of which the final result, though the same, is infinitely slower and more remote. This is it. Not every man returns hundreds and hundreds of times to the Earth, but an adequate and sustained effort may raise him to Venus or Mercury, or to a higher mission on the Earth, to prepare, together with the cradle of future rounds on the said planets, another greater one towards the central region where the Great Planet X is sketched out, and afterwards another, greater still, towards the ultra-central region of the future Satellite-Sun, to which as yet perhaps few lofty Adepts can attain. The Evolution, for the lower planets, seems thus to be in relation with the deva-evolution: that of the great planet requires nothing less than the abnegation of the Nirmanakayas.

From these and other analogous considerations arises a psychic astronomy, or one of the Ego. Each cycle of life of the man or inferior ego contributes thus an impulse to the progressive cycle of the Earth, its planet. These progressive impulses of the Earth bring on the advances of its

rounds or geologic periods. When the planet has thus progressed, the evolutionary wave passes to the two planets Venus and Mercury. The evolution of the monads or essences of all the inferior planets carries with it the progress of the seventh planet or Synthesis, and this in its turn that of the Sun . . . etc., etc. These and no other were the ancient Epicycles which only one of the numerous and gross materialisations frequent in the study of the lofty principles of the Cosmos as a Living Being could convert into the false Epicycles of Hipparchus which kept back astronomical progress for so long.

The problem of the Cycles of the Human Psyche, through its seven ages of each existence on the planet, is attacked in our work "Psychical Astronomy," published in "Sophia" in September, 1905. Therein it is shown that the orbital period of the author and of another Theosophist seems to be fourteen years. If the fact is confirmed, it cannot but give rise to serious problems. For the present, it is curious to note that that figure is intermediate between the orbital cycles of Saturn and Jupiter, nearer the latter than the former.

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Hermosa por todos conceptos la poesía titulada Confidencia, del Sr. Gabriel y Galcín, quien tales versos escribe merece, en realidad, el título de poeta, que muchos ostentan y á pequisimos cuadra. Merece también especial mención el artículo Confesiones del Sr. Novales Luna.

Part. III.

Estadísticos cósmicos - Mahakalpa y los mundos objetivos.

Todas las cosas . . . son setenarias . . . cada planeta está acreditado por 6 globos adherentes. " -

La ley de analogía es la 1<sup>a</sup> llave para el problema del mundo y estos anillos han de estudiarse coordinadamente en sus relaciones secretas entre sí. " -

Los "otros mundos" . . . son mezclados con nuestro mundo - penetrando en él y penetrados por él - así que millones de cosas y seres están, desde el punto de vista de localización, alrededor de nosotros y algunos dentro de nosotros, así como nosotros también estamos alrededor de ellos y dentro de ellos. Esto no es meramente una figura metafísica de nuestro hablar, no, ni mucho menos . . . y sin embargo incomprendible para nuestros sentidos. " -

La astronomía nos enseña:

1<sup>o</sup> que el cosmos (la unidad astronómica de 1<sup>o</sup> orden) está formado por la galaxia - o sea la vía láctea - y por otras sustancias, que, <sup>por ejemplo</sup> ~~lo mismo~~ como las nebulas de Magellan; no pertenecen a la galaxia.

2<sup>o</sup> que la galaxia (unidad de 2<sup>o</sup> orden) está formada por cuerpos nebulosos y conglomeraciones de Soles.

- 3° que cada uno de los grupos (unidades de 3 orden) consiste en varios Soles, unidos por el anillo del ra mismo origen / el movimiento del Sol hacia  $\alpha$  Lyrae)
- 4° que cada sol (unidades de 4 orden) está rodeado por una corte (señito) de grandes planetas (tipo Júpiter o los 36 cuerpos satélites de los astros del tipo Algol.)
- 5° que cada gran planeta (unidades de 5° orden) sea la integración dentro de uno de las 6 pequeños planetas como la tierra (véase la evolución solar y los series astro-químico)
- 6° que cada pequeño planeta (unidades de 6° orden) es sea, lo haya sido, o lo será siempre el centro y residencia - nuestra tierra por lo menos, si dejamos a parte la doctrina tradicional - de varios seres corpóreos entre los cuales se distingue preeminentemente el cuerpo del hombre - y las ~~restantes~~ restantes ciencias naturales y filosóficas continúen los series demostrando que!
- 7° que ~~en~~ en el cuerpo del hombre (unidades de 7° orden) o mismo como en la superficie de la Tierra, ~~aparecen~~ <sup>se ven</sup> como en un mundo aparte - varias entidades o cuerpos de seres animales, fáciles a reconocer y a dirigir por sus respectivos instintos.

7º (cometamos convenientemente una falta de anacronismo hallando del cuerpo del hombre que conocemos en lugar del cuerpo del hombre que no conocemos todavía. Siempre que se entiendan los ocultistas)

8º que las diferentes partes del cuerpo <sup>animal</sup> vegetal (unidad de 8º orden) se parecen a las del hombre y de la Tierra, que demuestran verdaderos organismos vegetales en ~~de~~ los sistemas circulatorio, nervioso, glandular y otros.

9º que las distintas partes del cuerpo vegetal (unidad de 9º orden) consisten ~~en~~ en instancias minerales del reino anteriormente llamado inorgánico y orgánico, al pero ahora sintetizado en uno solo por el químico Mr. Berthelot.

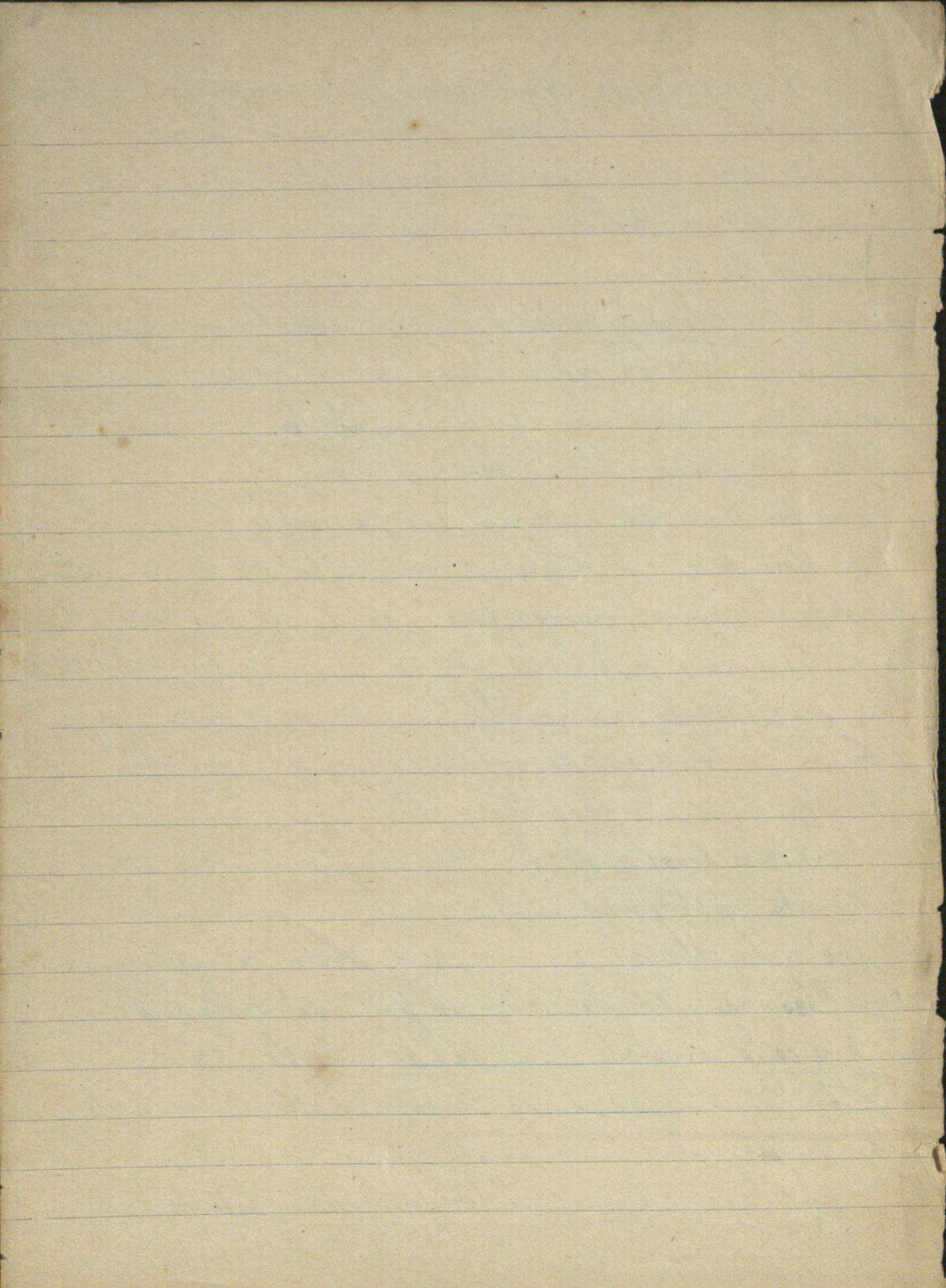
10º que las raras minerales (unidad de 10º orden) <sup>como</sup> se parecen a los de los seres de orden superior, consisten de células como las vegetales, animales y hombre.

(investigaciones de los Bros. Lhuillier y Bose sobre las células petrográficas).

11º que cada célula consiste en cristales geométricos en sus planos, cristales típicos por cada sustancia química)

12º que cada cristal (unidad de 12º orden) se compone de átomos, que forman a su vez moléculas simples y o complejas.

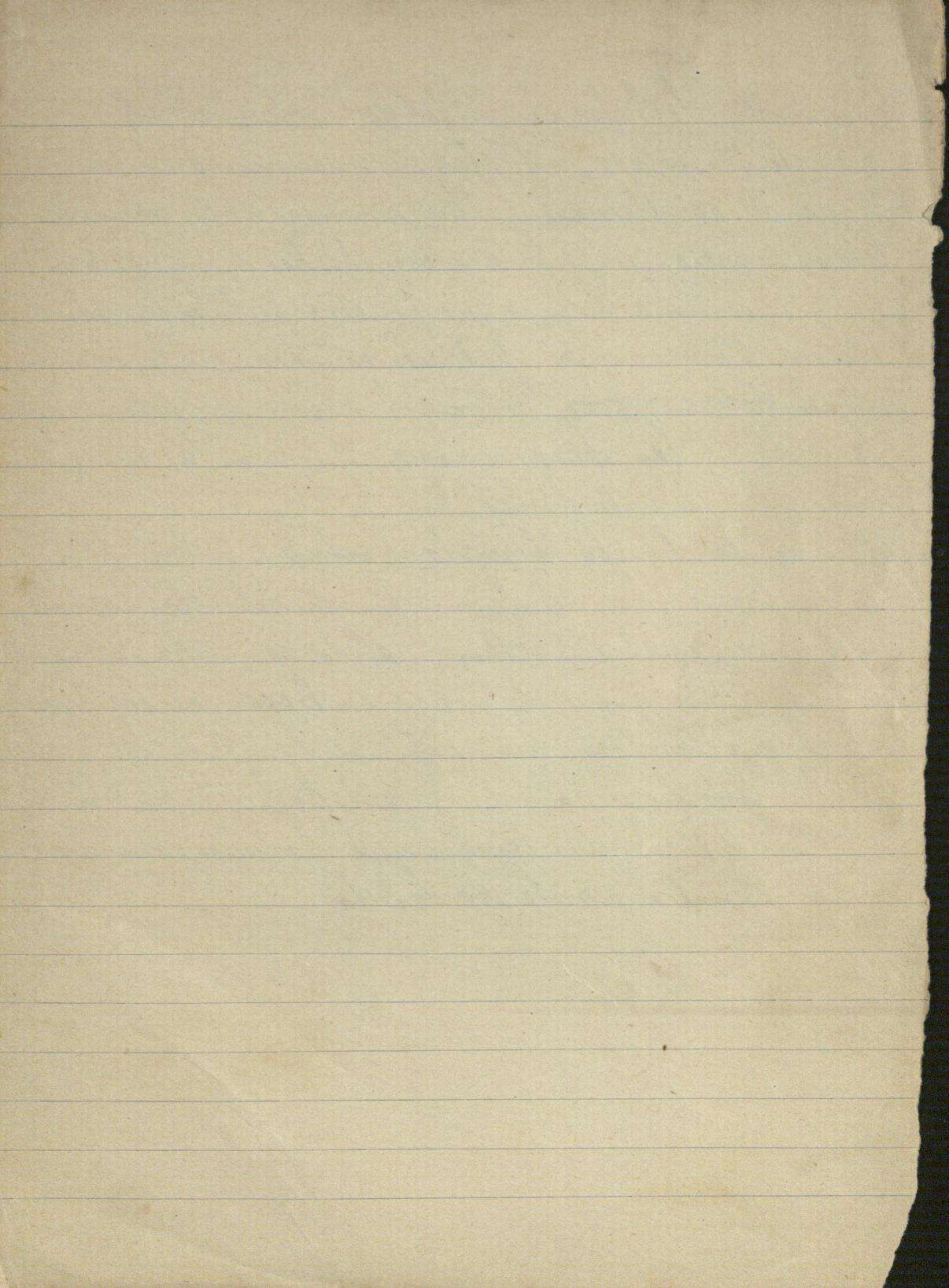
13º que cada átomo (unidad de 13º orden) está hecho de electricidad  
/ H. Crooke)



14.º que cada et. electron / unidad de 14.º orden no estimo  
que et. en estado particular de concreción ó conservación

15.º que el así llamado eter / unidad de 15.º orden ocupa  
todo el espacio, es perfectamente elástico e imponderable  
para nuestra ciencia, y que penetra en todos los cuerpos  
físicos (produciendo, por sus vibraciones, cierta combina-  
ción ~~determinada~~ ultra-química que determinan  
la vida y las disociaciones que son las que origi-  
nan la muerte física.)

16.º que todo el así llamado material eter (P.S.)  
es la física manifestación física del eter cósmico,  
(poter omnipotens Aether) dotado con vida, sentido,  
alma y energía volitiva o en breve, con los 7 prin-  
cipios que también animan al hombre. Por medio  
de ellos poter fecunda el y vivifica la primera  
unidad física delos cosmos que podemos considerar  
como nuestro punto de salida —







111