

THE TAIL OF THE EARTH;

OR,

THE LOCATION AND CONDITION OF THE
"SPIRIT WORLD."

BY

WILLIAM DANMAR,

BROOKLYN, 1887.

ACKNOWLEDGEMENT.

*A. Comte,
Confucius,
H. Davy,
B. Franklin,*

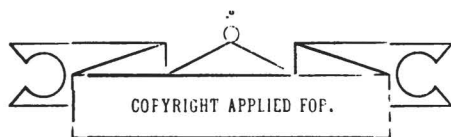
*G. Galilei,
I. Kant,
J. Keppler,
F. Zoellner*

are the members of the band of philosophers in the other life-sphere who have co-operated with me in the investigation of their world, and have generally assisted me in my discoveries, for which my thanks are due to them.

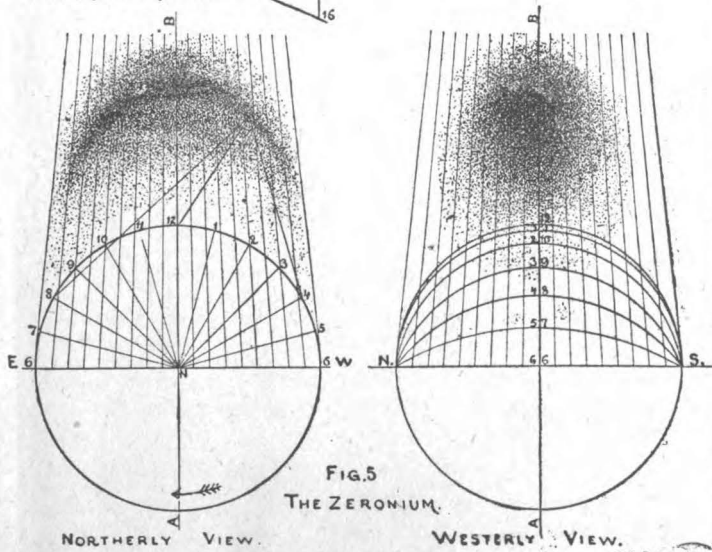
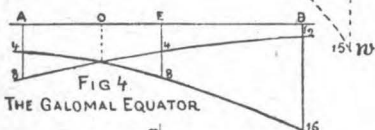
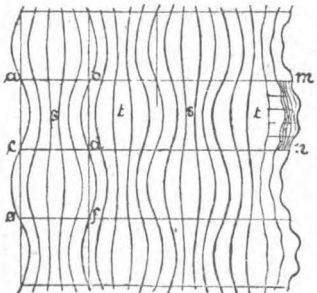
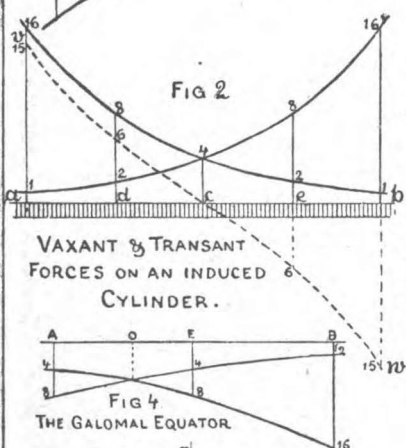
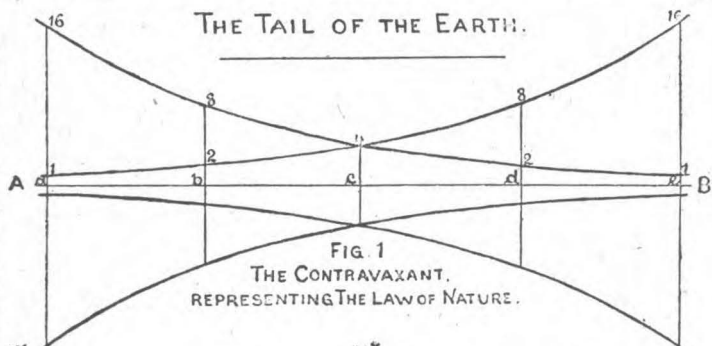
THE AUTHOR.

NEW YORK:
CONCORD CO-OPERATIVE PRINTING COMPANY (LD.),
47 and 49 Centre Street.

1887.



THE TAIL OF THE EARTH.



VOCABULARY

of the new terms used in this pamphlet, which were needed to express new ideas not named heretofore. The text contains more explanations on the pages stated behind every term.

Chemicature (page 15) is the condition of mass in regard to the proportion between its chemical cold and chemical heat.

Contravaxant (page 14) is a pair of equal but opposite vaxants on a mutual axis.

Contravaxantism (page 14) is the law represented by the contravaxant; namely, that the products of its duordinates is constant. C. is proved to be the law of nature.

Duordinate (page 14) is a double ordinate in the contravaxant; the one ordinate of a duordinate belongs to the materal and the other to the pateral vaxant, and both form at any point on the axis a constant product.

Equatum (page 21) is the product of equalization of two substances of different galomatures. There are temperal, electrical and chemical equata and the resultant of them all, which is a galomal equatum.

Galom (page 12) is the ever constant product of materity and paterity. It is the spacefilling entity and the essence of mass.

Galomalism (page 12) is the new perception of reality, based on the knowledge of contravaxantism as the law of nature, or galom as the essence of mass.

Galomalization (page 45) is the process of changing the galomature of a certain body or mass.

Galomic factors (page 12) are paterity and materity, or heat and cold, which produce the constant galom.

Galomature (page 13) is the general condition of mass in regard to the proportion of the factors of its galom to each other.

Galomium (page 21) is the infinite mass of galom, it substitutes the non-existing universe of materialism and spiritualism.

Latenture (page 17) is the condition of mass in regard to the fixed proportion between its factors during a certain temperal period of a chemical substance; and latent heat and cold are the factors of galom in regard to latenture.

Latento-chemical (page 21) are those processes which are latent and chemical both, and result in the so-called "multiple proportions" in chemistry.

Materal (page 14) is that which tends to matter.

Materalization (page 45) is the operation to increase the materity of a body, especially of a zeroid; it is the materal direction of galomalization.

(RECAP)
50
283

164408

Materity (page 12) is the tendency in the essence of mass to matter; it is the material factor of galom, or the material tendency in galomature.

Matero-electricity (page 16) is the material tendency in electricity, and is opposite to patero-electricity. Materialism called the first positive, and the second negative, electricity.

Medialum (page 46) is the medial substance used by zeroids for materialization of their body.

Mentalism (page 9) is the metaphysical perception, which is based on the idea that the essence of mass is mind; mentalism is wrongly called "spiritualism."

Pateral (page 14) is opposite to material.

Pateralization (page 47) is opposite to materialization.

Paterity (page 12) is the opposite galomic factor to materity.

Patter (page 12) is the opposite impossible extreme to matter.

Physiometry (page 1) is the mathematical science of nature.

Protoid (page 26) is a being in the first sphere of organic life.

Protorium (page 26) is the realm of the protoids.

Spantom (page 13) is a small part of galomal mass, which vibrates by expansion and contraction; it substitutes the molecule of materialism.

Transant (page 18) is the figure which represents by its ordinates the difference between the ordinates of the duordinates of a contravacant. Transant is also used as adjective to forces, and is then identical with "preponderant."

Transode (page 18) is the curve limiting the transant sideways.

Temperal is pertaining to temperature.

Vax (page 14) is used in physiometry to signify the change of an ordinate in a vaxant when moved uniformly along the axis in any direction. To vax has two opposite directions, disvax and envax.

Vaxantism (page 14) is the law represented by the vaxant.

Zeroid (page 26) is a being in the second sphere of organic life; the human zeroids are identical with the so-called "spirits" and "angels."

Zeron (page 22) is the substance of the zero of nature.

Zeronic (page 22) is pertaining to zeron or zeronity, which is the condition of perfect galomal equilibrium.

Zeronium (page 26) is the realm of the zeroids and the tail of the earth.

THESE new terms may increase the difficulties in the study of this treatise, but they were necessary and unavoidable. It is better to invent a new term for a new idea than to express it wrongly or insufficiently with old terms. Those who want an understanding of the cause and object of their being will not be sorry for the troubles these new terms may cause them.

THE TAIL OF THE EARTH.

1. The earth has a tail, which consists of vegetable, animal and human "spirit"-bodies. This tail has its location in the shadow of the earth, and is in many respects analogous to the tail of a comet. It is the object of this treatise to demonstrate the necessity and condition of the tail of the earth as the world of the so-called "spirits," on the basis furnished by the established scientific facts in the physiometrical work, "The Law of Nature," by the same author; this dissertation being a sort of general introduction to said principal work. We were compelled to invent some new terms for the expression of new ideas; the vocabulary contains the definition of the new terms.

Before we can speak of the bodies of "spirits," the question is to be answered, Is there any individual life beyond our present one? Spiritualism answers it in the positive, and materialism in the negative. It is understood that in the discussion of such a question it is necessary to touch upon metaphysics, or the contemplation of the essence of the reality which is underlying the natural phenomena, and gives to nature its law; or still more, that the question is mainly a metaphysical one, as spiritualism and materialism are also nothing but metaphysical perceptions and systems standing on the opposite extremes of the subject.

Our standpoint is neither spiritualistic nor materialistic, but somewhere between them, yet not a dualistic mixture of them. Before determining our standpoint, it behooves us to enter into a brief review of the elementary ideas of the extremist philosophies of spiritualism and materialism, leaving out all that is not essential and which consists only of the methodical differences of the different systems.

2. At present there are many people, who, from personal experience with "spirits" are convinced of an individual life beyond death. These people are generally called "modern spiritualists," which in many cases is undoubtedly correct; but it is not right to term the mere conviction of the truth of

the manifestation of "spirits" through the aid of media "spiritualism," because those beings in the other life-sphere could also be perceived as being material, and a person could be convinced of their existence and manifestations and still be a materialist. Facts and the philosophical perception of them must be held apart. The term "spiritualism" signifies a certain metaphysical perception of reality, and should be used in no other sense but that; while the movement which demonstrates and propagates the manifestation of "spirits" through media is more properly termed "spiritism," as used in Germany and France,—a term which is not quite independent of metaphysics, but acceptable as long as those beings in the other sphere of organic life are called "spirits."

The spiritists especially have ample reason to be sceptical in regard to the existing traditional systems of metaphysics, namely, spiritualism and materialism; for the authorities and representatives of these systems are recklessly at war with the stubborn facts of which the spiritist has convinced himself by his own senses, which are more trustworthy to him than the unproved metaphysical theories of others. A radical scepticism in this respect is the more appropriate to the spiritists, because the opposition of the materialists and the religious spiritualists, who term the facts advanced by the spiritists simply fraud and delusion, is based solely on metaphysical theories, and this opposition seems apparently the better founded, the more unproved metaphysical theories the modern spiritualists among the spiritists also connect with their reports of the observed facts—theories which often degenerate to wild fantastic speculations and assertion which are in direct contradiction to the positive sciences.

While the facts of spiritism are true, those put forth by the official investigations of Nature of the scientific faculties are also true, and as Nature is consistent, because it has but one law, a contradiction between the facts is impossible, that is, there cannot be two contradicting truths at the same time, but the contradictions are to be found solely and entirely in the theories connected with the facts.

3. That space and time are mere abstractions and not real things, is, since Kant, a proven truth almost universally accepted in philosophy; hence forms and compositions are unessential

properties of things, or of the infinite reality which fills space, and besides which there is no room for a second reality. Without, then, taking a metaphysical standpoint, we can all of us, without danger, agree in calling the concrete reality which fills space, "mass" (stuff). It is also often called "substance"; but the idea of substance is connected with that of body, and as the term is used also in chemistry for the chemical substances, it is not nearly as precise and unmistakable as the term "mass" which is independent of the idea of body, signifying simply the accumulation of the space-filling reality, no matter what its essence may be.

But the people philosophized to obtain a knowledge of the essence of mass, and according to their perceptions in this respect, they called it either a material or a spiritual mass, or the mixture of them both. Through misapprehension of the original ancient philosophies the idea also originated that the essence of mass in mind, or a mixture of mind and matter; but this perception could originate only after men had a tolerable knowledge of abstract ideas, and confounded the abstract and the concrete.

Those who term the mass which is underlying nature, "matter," and at the same time suppose space to be filled only in part by it, while the other part is empty, are materialists; those who suppose it to be spirit are spiritualists; and those who suppose it to be a mixture of matter and spirit have no special name, but are either modern materialists or modern spiritualists, according to whether they suppose matter or spirit to be the most important part in the mixture. All those who speak of "matter and ether" as being the mass of the world are modern materialists, for the identity of ether and spirit is easily shown. Genuine materialism and spiritualism are monistic, and modern materialism and spiritualism are dualistic. Monism means that the essence of mass is unity, that is, mass is either unitary matter or unitary spirit; and dualism means that it is the sum of unitary matter and unitary spirit. Perhaps the essence of mass is independent of numbers entirely and therefore neither unitary nor dual (nor plural), for numbers represent units, and these are limited, while reality is not limited either in largeness or in smallness, it is infinite. Between the ideas of unity and infinity, which are unfortunately so often confounded, there is a great difference; and perhaps a universe or a unitary All does not exist, although the monistic philosophies,

which cannot do without it, have taken it for granted without considering it much.

Monistic spiritualism is the oldest philosophical perception of reality. To expound the original and true meaning of the word "spirit" as a metaphysical term, we must investigate the scanty reports of the original metaphysics of men. The following brief explanation is based partly on historical and philological facts, and partly on analogical conclusions.

The direct meaning of the word "spirit" (in Latin, *spiritus*) is that of "breath," and if used in any other sense it assumes the character of a symbol. To call the mind "spirit" belongs to periods of philosophy, when the original symbolical meaning was lost.

The ancient philosophers taught that heat was a subtle fluid. This idea has in modern times been displaced by the materialistic hypothesis that heat is a motion of material atoms. Our prehistoric ancestors observed that wherever the light and radiated heat of the sun struck the hard and liquid mass of the earth, organic life appeared, and they concluded that the heat which came from the sun, was the cause of life or the life-creating element. The sun was taught to be a man and god (from *goda*, ruler), who was ruling the universe. The worship of the sun as a god, which is still to be found to-day among some wild tribes, was the first form of religion, and from this most if not all other religions are derived in a manifold manner, so that with some religions the original idea is hardly traceable. Those primitive men did not have the idea of radiation; the language of their philosophers was a symbolical one, as this is generally the case in undeveloped conditions; they, therefore, explained the manner in which the sun sends heat to the earth (a question which even modern science has not clearly answered) thus: that *the sungod is breathing the heat*. Breathing is indeed the best and nearest symbol for radiation, especially when the radiated object is supposed to be a fluid. Heat was then called the breath or, in Latin, the *spiritus* of god.

We see that that which we call heat, is identical with "the spirit of god," or, reversing it, *spirit is a symbolical name for heat*.

As the sun was perceived by the senses only as the centre of light and heat, it was after a number of generations, supposed to consist only of heat, and then god and spirit became identical. In still later generations, some tribes lost the connection of this

philosophy with the sun and spoke of god, the representative of spirit, as being omnipresent and filling the universe, being the essence of everything and making all things, including the earth, out of nothing but himself. Only 2400 years ago, the Greek philosopher Heraklitos still advocated the truly spiritualistic idea, that all things were originated from a universal divine fire. He was the last historical genuine spiritualist. Cold was supposed to be a lower condition of heat and hence matter a lower condition of spirit, so that according to this philosophy, the entire mass of the universe is spirit or heat.

This perception of reality is *genuine spiritualism*, and a religious form being generally given to it by personifying "spirit" as a man, father and god, it is religious monistic spiritualism. It is known that the *one* god which is supposed by the religious spiritualists to fill the universe, was never personified as a woman but always as a man or father, as spirit was supposed to be masculine and the essence of mass, therefore, to be absolute masculinity or "paterity" (see vocabulary).

Spiritualism is fatherism.

5. We will now investigate the opposite extreme. The history of philosophy tells us of Leucippos and Democritos as the originators of the atomic hypothesis, which in its principal and fundamental point has not been changed. They speculated on the interior constitution of mass and came to the conclusion, that it consisted of very small indivisible and absolutely hard or material stones, which they called atoms (from atomous, indivisible). These eternal atoms, it is said, consist of ponderable, pure, inert, absolute matter which by its inertia has the character of absolute passivity, and they are without any interior changes, such as expansion and contraction. The space between the atoms is supposed to be empty, notwithstanding the abstractness of space.

The world consists of material atoms and empty space, this is the basis of genuine materialism.

Wherever the idea of the atomity of mass was accepted, materialism was the necessary consequence, as on the other hand, materialism without atomism is impossible, since the empty space between the atoms is required for motion, for in a space completely filled with "inert matter," no motion could take place.

The word "matter" (old-English—matere) is derived from the Latin word *mater* which in English is mother. While spiritualism perceives reality as father, or absolute paterity, materialism perceives it as mother or absolute "materity" (see vocabulary).

Materialism is motherism.

It is only required that materialism should personify its matter as a feminine god to make the contrast to religious spiritualism complete.

Heat is explained by materialism as motion of atoms and "spirit," therefore, as a property of "matter," just as spiritualism says that "matter" is a property of "spirit." It is known that a heating influence expands a body proportional to the increase of its average heat; the more heat in a certain volume, the less "matter" and consequently cold and "matter" are identical. If spiritualism be called heatism, then materialism is coldism. As "matter" is supposed to attract "matter" (though this is not in harmony with the idea of the inertia of "matter"), materialism measures mass by attraction or weight, and that which has no weight is supposed to be nothing, hence space is supposed to be filled unevenly with mass, or to be full in some and void in other places. As materialism always favored the scientific investigation of nature, and for this reason has done more for human progress in one century than spiritualism did in all the time of its existence, the materialistic terms have forced themselves upon the representatives of science and the people at large in such a manner, that mass is now generally called "matter," and the word "spirit" is meant to signify an unexplained something which is not supposed to be mass and can consequently have no real existence. We arrive at the conclusion that those who term mass "matter" are either materialists or wander in philosophical darkness.

6. In the course of time, many variations of these original ideas appeared, which resulted in the different philosophical systems. Especially the idea of "spirit" has undergone such radical disfigurations that the original has almost vanished. Diogenes of Appolonia taught that the origin of all things was to be found in universal air (which already shows a considerable cooling and inclination to materialism, compared with the ideas of the spiritualists), and that this air possessed a divine reason which regulated the world. After him came the fantastic

idealists Socrates and Plato, who *identified spirit and mind*. Instead of universal heat, universal mind was made the underlying reality of nature, and consequently mentality the essence of mass ; and the old god which was abstracted from the sun became a new one made up of pure mind. This unfortunate metamorphosis of the old symbol "spirit" into the idea of mind has since dominated in philosophy. To perceive reality as omnipresent mind, is no true spiritualism but is properly termed *mentalism*.

It is doubtful whether this mentalism which to-day is represented by the reactionary priestcraft of the religions can properly be ranked as a metaphysical system, for it has really never attempted a rational explanation of nature, and consists of nothing but dogmatic and bombastic phraseology which is not to be understood but to be believed. To clear the subject, we must separate spiritualism and mentalism into two distinct perceptions of reality, of which the first perceives the essence of mass as heat and the second, as mind. This separation is especially necessary for the modern spiritualists and spiritists, for their experiences with manifesting "spirits" should have convinced them, that the "spirits" *have* a mind or soul, but that they *are* not abstracted minds without a physical and massive basis. The perception of mind as independent of a physical organism is a result of the unhappy confounding of the abstract and the concrete which generally underlies all pure and mixed forms of mentalism or "spiritualism."

The dualistic perceptions of modern materialism and modern spiritualism (respectively modern mentalism) resulted from the efforts to compromise genuine materialism and spiritualism. Many materialists came to the conclusion that empty space between the atoms was impossible, since space is a mere abstraction, and they then accepted the idea of an imponderable fluid, the original heatstuff, called it "ether," and with it filled the space left empty by the material atoms. In the mass of a body, this mysterious ether is proportional to heat and identical with spirit. According to modern materialism, mass consists of the sum of two unitary entities,—atomic matter and inatomic ether or spirit ; many modern materialists though try to avoid the acknowledgement, that dualism is their principle, for it has so many weak sides. Modern spiritualism is confessedly dualistic ; it has two universes—a spiritual and a material, but it regards the spiritual as the "higher." It generally confounds spiritu-

ality with mentality, but among the spiritists there are modern spiritualists who have recognized this as a mistake. Modern spiritualism is somewhat inclined to investigation and science, but its theories are in many cases at war with the results of the experimental and exact sciences.

The only metaphysical system of the now existing ones, which has a clearly expressed basis and proceeds in a somewhat scientific manner, is that of genuine monistic materialism, and with this we are mainly at issue.

7. From the critique of the atomic hypothesis in "The Law of Nature" we conclude the following: The existence of atoms is neither sensibly experienced nor in anyway logically proven; the atoms are arbitrary speculative inventions. The indivisibility of a body of three dimensions is a logical impossibility. Logic leads us to the infinite in the small and in the large; final and absolute smallness and largeness are not possible, because small and large are relative abstractions neither of which can be thought of by itself, and without reference to the other. That "the thing must still somewhere have an absolute beginning" is a perception which had its origin in the ignorance of the idea of infinity,—an idea of which the primitive man knew nothing, and the modern man not much more than the name, which is shown by the continual confusion of unity and infinity. Some materialists have tried to explain atoms as extensionless forcecentres, but this amounts to giving up atomism and materialism, and falling into dynamism, which is essentially identical with spiritualism, since heat is termed a "force." Genuine materialism is dependent on the solid indivisible atom of pure inert matter.

As monistic materialism can consistently have but one unitary entity (namely, matter) while everything else is property of matter, it explains heat as nothing but motion of the atoms grouped in molecules, or as molecular motion. Latterly the materialistic philosophers have been forced by the experimental sciences to accept the idea of the essentiality and indestructibility of heat; nay, they have even been inconsistent enough to accept and forward the empirical decree: "*No matter without force (heat and its analogues) and no force without matter.*" In the first place, if heat be motion of the atoms, and consequently a mere property of matter, it is destructible, like every other

property, while essence is indestructible. It is therefore proper for the materialists to speak as they do of "the absolute zero of heat," where there is matter without heat. In the second place, if there be no matter without heat, and no heat without matter, it is just as logical to conclude that matter is a mere property of heat or "spirit," as that heat is a mere property of matter ; and we perceive that at root, and according to empiricism, spiritualism and materialism are equally right and equally wrong. The idea of empty space between the atoms has been argued from the premise : "The nothing is something ;" this belongs to the worst kind of sophistry. Moreover, motion occupying time requires resistance of the medium, motion in empty space would, therefore, take no time, the consequences of which are utterly destructive to materialism.

Materialism, with the aid of some new and not always consistent hypotheses, has given superficial explanations of some natural phenomena, especially in chemistry ; but in regard to the psychical it is entirely at fault. Some materialistic scientists, among them Dubois-Raymond in Berlin, have come to the conclusion that an explanation of psychical facts on the basis furnished by the hypothesis of moving atoms is impossible. Other scientists have expressed themselves to the effect that the idea of matter requires a radical change to make it fit for scientific explanations of phenomena. Such a change would, first of all, require the abolition of the idea of finite divisibility ; but to this L. Buechner, a prominent philosopher of a vague popular materialism objects by saying, that "though we are not in a position to place ourselves in thought at the farthest point at which matter is no more divisible, yet there must be a limit to it somewhere. To suppose an infinite divisibility is absurd : it means to assume nothing, and to throw doubt upon the existence of matter at all."

It shows that the materialists have a wrong perception of infinity : otherwise they would not think that the infinitely small is nothing. Perhaps it will be necessary for the scientists to abandon the idea that the essence of mass is matter or absolute materity, and accept a new idea which is not based on an arbitrary hypothesis, but is mathematically developed.

8. The discovery of the law of nature, which represents the essence of reality, has now caused a new perception of reality,

which is termed "galomalism." The fundamental idea of galomalism is as follows: Mass fills space commensurately; and the essence of mass is neither matter nor spirit, nor the mixture of the two, but it is "galom," which is the constant product of two opposite relative factors—materity and paterity—which in another aspect are the opposite tendencies in the condition of mass.

Materity is identical with materiality and feminality: it is the conditional tendency in the essence of mass to matter. Absolute materity would be matter; but it is an impossible extreme, in the same way as absolute hardness and coldness. The phenomenal forms of materity are temperal, chemical ("atomic weight"), and latent cold and matero-electricity ("positive electricity"), which are the same essentially, and sum up under the name of "materity."

Paterity is identical with spirituality or spirituality, in its original symbolical sense, and with masculinity. It is the conditional tendency of mass to "spirit," or patter. The word "patter" is derived from *pater* in the same way as matter from *mater*. Absolute paterity would be patter, or "spirit": but this is the opposite impossible extreme to matter; it is impossible in the same way as absolute softness or heat, or absolute activity without passivity. Paterity appears as temperal, chemical ("specific") and latent ("latent") heat, and patero-electricity ("negative electricity"), which are the same essentially and sum up under the name of "paterity." In general, materity has the character of hardness, inertness and passivity, and paterity, of softness and activity. Materity may also be perceived as thickness, and paterity as thinness, of mass, if by this we refer to more or less resistance only, and not to a difference in the filling of space; for thinness is then as space-filling and positive a factor as thickness. There is however a danger, that "thinness and thickness" as explanations of paterity and materity may lead to misunderstandings.

Neither materity nor paterity can ever exist in a pure form, separate and alone, abstracted from the other, because a separation is impossible, since they are not mixed things, but opposite essential tendencies in the condition of mass. Matter and "spirit" or patter are consequently the opposite impossible extremes, and reality lies between these extremes.

Galom is the constant product of materity and paterity, these being the *galomic factors*. The continuous accumulation of galom

in space is mass, which consequently fills space commensurately. Before galom was discovered mathematically, only one of its analogues was partly known to experimental science: materialism calls it "atomic heat" in regard to the elements and "molecular heat" in regard to the so called "compounds," and its factors, "specific heat" and respectively "atomic and molecular weights." This product, though, varies, and is not that entire constant product which is termed "galom," as we shall see later. It is now discovered, that the same constant product of heat and its opposite is to be found not only in the chemical condition, but also in all other—the temperal, latent and electrical—conditions of mass; and that it is the unchangeable, absolute essence of mass and all things, which alone remains constant at every place and time during the infinite changes of natural phenomena.

Galom constitutes mass spantomically, as illustrated in Fig. 3 of our plate. A spantom is a very small spanned part of a substance, which vibrates in consequence of its own interior elasticity, each vibration consisting of an expansion and contraction of the spantom. The square *abcd* represents a spantom; *s* is the maximum of materity, and *t* the maximum of paterity: these maxima run successively through the whole mass, and their number per unit of time determines the color of the substance. Every chemical substance has its own spantoms at a certain temperature, which change during the latentures; but this question is of no great importance at present.

9. While the accumulation of galom, or the galomal mass, is commensurate, it is not uniform in regard to the distribution of its tendencies materity and paterity; but in this respect numberless variations take place, by which are caused the different conditions of mass. The elemental conditions of galomal mass are the following: temperature, electricity, chemicature, and latenture, which are the different phenomenal forms of galomature, of which they are analogues.

Galomature is the entire condition of mass in regard to the proportion of the galomic factors, materity and paterity, to each other. In "The Law of Nature" it is proved that in all conditions, and during all possible changes of galomature (the temperal, electrical, chemical, and latent), the constancy of galom as a quantity is not affected, and that there is no possible way whatsoever to affect it, but that all changes of mass take place

in such a manner that the galomic factors, without fail and exception, remain inversely proportional. We shall endeavor to avoid mathematics as much as possible ; but nature cannot be exhaustively explained without it, and a few simple mathematical ideas must be explained here, which everybody of good sound sense will be able to comprehend. Fig. 1 of our illustrated plate represents a contravaxant. The straight line AB is the axis on which the equal grades ab, bc, cd, de , are marked. To these grades, and rectangular to the axis, straight ordinates are drawn ; and the ends of them are connected by curves, which are commonly called the "logarithmic curves," but which in Physiometry are termed "vaxodes."

The two vaxodes which open to the right limit a plane which is called the "material vaxant," which is limited on the left by the infinitely small, and on the right by the infinitely large. The vaxodes which open to the right limit the paternal vaxant, which is in every respect opposite to the other.

The law of the vaxant, which is termed "vaxantism," is this: that, if we move an ordinate uniformly along the axis of it, the ordinate increases or decreases, not uniformly, but vaxingly, that is, with a certain constant exponent for a certain unit of time. In Fig. 1 the ordinate of the material vaxant, at a is a unit, at b is 2, at c is 4, etc. At such grades as taken here, the ordinate doubles, but other grades could be taken in the same vaxant which would multiply the ordinate by any other exponent. If the exponent is more than 1, the ordinate envaxes to the right, and if it is less than one, it disvaxes to the left. Envaxion is that peculiar form of increase which is so well known from the increase of capital at compound interest.

Two opposite equal vaxants like those in Fig. 1 form a contravaxant, and the double ordinate of it is called the "duordinate." It is an important law, that if, at any point in the infinite contravaxant, we multiply the two ordinates which form a duordinate, their product is constant, as may be seen from Fig. 1, in which the constant product is 16. While the one ordinate disvaxes, the other envaxes to the same grades of action; and this law, represented by the contravaxant, is called "contravaxantism," which is proved to be the law of nature, that is, that law which is given to nature by the essence of mass.

Contravaxantism is the only law of nature, and causes its absolute consistency; all other laws are laws in nature, that is, laws of local or spacial circumstances, and are mechanical laws which

can be deducted from the cone. The law of nature is not a mechanical law, and nature is not a mechanism. The law of a natural force is vaxantism, yet *single* forces do not exist, but actions only; and in an action are two opposite forces, one of which is active and the other passive. It is proved that contravaxantism is the law of every temperal, electrical, chemical, latent, and consequently also magnetical action, which includes the constancy of galom during any kind of action.

10. The principal physiometrical factum, that *in galomature, materity and paterity are contravaxant*, is established by proving the contravaxantism of every analogue of galomature.

In temperature temperal heat and cold are contravaxant. Temperature is the condition of galomal mass as far as it is directly transferable from one body to another without requiring a change in the interior spantomie constitution of mass. During mere temperal changes of a body, its spantoms do not vary in number, but their mass, represented by volume, increases and decreases proportionately to that of the body and its heat. The proportion between the maxima of materity and paterity, *s* and *t*, remains constant (see Fig. 3).

Heat is not a motion of the non-existing atoms, but it is the conditional tendency of mass to the infinitely soft. Since it acts as the space-filling activity of mass, it is transferable from one body to another, as required for temperal equilibrium. Cold is not negative heat, for the two are not added, but multiplied; it is the conditional tendency of mass to the infinitely hard. Again: hard and soft are relative, and neither is ever absolute. An absolute zero of heat is, therefore, impossible. If, at any time, during the heating of a body, heat and cold are multiplied, their product is constant. Heat is measured by the thermometer, cold by the frigidometer, and temperature by the temperometer; the latter of which has a vaxometrical gradation, as shown and proved in "The Law of Nature."

In chemicature, chemical cold and heat are contravaxant.

The term "chemicature" signifies the chemical condition of mass, or the proportion between the fixed materity and paterity of a certain mass at a certain temperature. The different conditions of mass in this respect are represented by the different chemical substances. Chemical cold is partly represented by the "atomic," or, more properly, chemical weight of a substance,

but not entirely, because weight is not the whole attraction between the earth and the substance, for the heat of the earth attracts the cold, but repulses the heat of the substance, and weight is the expression of the preponderant attraction. The difference between the entire attraction of the earth as a representative of chemical cold, and chemical or "atomic" weight, is the greater, the larger the chemical heat of the substance. The empirical law of the constancy of the product of "atomic weight and specific heat," of which Lange, in his "History of Materialism," says that it has never yet been raised to the rank of a true law of nature, is consequently not entirely true; for the constant product is that of the entire chemical cold and heat. The experimental table of "atomic and molecular heats" shows that the product varies from 5.5 to 6.8. This deviation from the law of Dulong and Petit was excused on the ground of inaccuracy in experiments, which is undoubtedly partly true; but the experiments were much better than was supposed by the experimenters themselves, for the product must be the larger, the heavier the substances, which, on an average, is the case in said tables.

Materialism, which until now was monarch in chemical philosophy, calls this product respectively "atomic" and "molecular" heat. In mechanics, the product of weight and motion is called the "momentum": consistency would seem to require the calling of the product of "atomic weight" and "the atoms motion" (heat) the "atomic momentum," but this would be dangerous to materialism, for it indicates dynamism.

In electricity, matero ("positive") and patero ("negative") electricity are contravariant.

Electricity is abnormal temperature. In Fig. 3 the outer layer of spantoms to the right is electrical, which is caused by an outer disturbing influence on the body. The inner spantoms afford resistance to equalization or absorption of a force; the added force, in form of paterity or materity, has, therefore, to wait a while in the upper layer of the body, where it causes small electrical spantoms in the regular temperal spantoms, as shown in the figure. If the unabsorbed force is heat, the surface is patero-electrical; if cold, it is matero-electrical. This explains why electricity is to be found only at the surface of bodies, and never in their interior. All fundamental electrical phenomena are explained in "The Law of Nature." The arbitrary terms "positive" and "negative" are shown to be inconsistently applied, since materialism

calls heat positive, and cold negative; but the electrical tendency, which is analogous to heat, it calls negative, and the other positive. Galomalism perceives both electrical tendencies as positive, likewise heat and cold, and in general materity and paterity.

In latentature, latent cold and heat are contravaxant.

Latentature is the condition of galomal mass in regard to its "latent," or, as we call it for analogy, latent heat and its opposite. Materialism calls the solid, liquid, and aeriform states of mass the three different aggregate conditions of matter, since it supposes them to be differently formed aggregations of material atoms. Instead of this, galomalism perceives these conditions of mass as analogues of chemicature, depending on proportions in the spantomic constitution of a substance in different temperal periods of it; but there are more than three latentatures. Common oxygen and ozone are two gaseous latentatures of oxygen, which has as many of them as it enters differently into chemical processes, by which the so-called "multiple proportions" are caused. Several substances which are generally known as gases have five latentatures, of which three are gaseous. Now, the fixed galomature, or proportion between its galomic factors of oxygen is its latentature in regard to ozone, and its chemicature in regard to nitrogen or any other chemical substance. Both latentature and chemicature are, therefore, the same condition viewed from different standpoints; they have consequently the same law, which is contravaxantism.

11. Galom is not unitary because it has two opposite factors (monism is therefore not the principle of galomalism); neither is it dual, because neither of its factors is a thing by itself, and galom is not their sum, but their product (neither is dualism the principle of galomalism). Reality is independent of numbers, which mean nothing but what we arbitrarily make them mean: the principle of galomalism cannot, therefore, be expressed in terms referring to numbers, such as monism, dualism, trinitism, etc., but is called "contravaxantism," which in popular language may be termed "inverse proportionality," but two inversely proportional factors are contravaxant only when they belong together as relative tendencies in a condition.

The infinite mass of galom is called the "galonium" which is to take the place of the one universe of monistic and the two

universes of dualistic philosophies. A unit, such as the supposed god, may be able to fill a universe, but it can never fill infinite time and space, for a unit is limited. The galomium is out of equilibrium; hardness and softness, or materity and paterity differ at different places, and as both are equally energetic as spacefilling factors, but have opposite positions as forces, they continually are at work to establish equilibrium between themselves, and this process of establishing galomal equilibrium is *nature*.

The inequilibrium of the galomal factors is eternal, for had the galomium once been at equilibrium, it never could have got out of it, since there is nothing possible outside of the galomium which could have disturbed its equilibrium, as there is no outside of it. Nature is eternal; for the mass which is out of equilibrium, and tries to equalize its galomature, is infinite.

Before we go further with our explanations, we must become acquainted with Fig. 2 of our illustrations. It shows a cylinder of iron with a contravaxant drawn on the upper line, *ab*. If the cylinder were heated at *a*, and equally cooled at *b*, the contravaxant would represent the distribution of the added heat and cold along the cylinder: the same is the case with an electrically induced cylinder. Now, it is evident, that, at any point on the cylinder only so much of the added heat is exhibited on a thermometer as is overweighing the added cold. At *a* this preponderant heat is 15, at *d* it is 6, at *c* it is 0 (for here both forces are equal, and the temperature still at its former zero); at *e* cold is overweighing by 6, and at *b* by 15. These quantities are represented by the deviation of the dotted curve *vw* from the line *ab*. This curve is called the "transode," and the plane which is limited by it and *ab*, the "transant," the ordinates of which represent the preponderant or transant forces in conditions.

In nature everywhere it is only the transant forces which make themselves felt to the exterior, or which express themselves, while the rest of the forces are balanced in themselves. It is to be observed that at the zero of the contravaxant the transant force is equal to nothing.

12. Magnetism, for which materialism has no real explanation, is the necessity of galom to establish equilibrium between its equally strong and important factors, materity and paterity, both of which are equally space-filling, and constantly aiming to

balance each other. This necessity causes equalization between bodies of different galomatures, generally merely by paterity being transmitted from the one body to the other. In this respect, materity and paterity attain the character of forces.

Materity repulses materity and attracts paterity, which repulses paterity and attracts materity. In "The Law of Nature" it is proved that *in magnetism, repulsion and attraction are contravariant*. The distribution of the magnetic energies is dependent on that of the galomic factors. Just as there is no materity without paterity, and no paterity without materity, so there is no repulsion without attraction, and no attraction without repulsion: both are the opposite energies in magnetism, or the necessity of galomal equalization. The entire dependence of the magnetical on the galomal conditions of mass necessitates a similar sub-division; so that we can speak of temperal, electrical, chemical, and latent magnetism.

Two equal suspended balls, of different electricities, attract each other; that is, on account of their electrical inequilibrium, the attraction between them preponderates the repulsion, and the preponderant or transant attraction is expressed as the energy of the balls to touch each other. After they have equalized their electricities by some patero-electricity being transferred to the matero-electrical ball, they are indifferent to each other, because attraction and repulsion are now equal, without difference, indifferent. Indifference is not the absence of magnetism, but the equality of its opposite energies. But the two balls are still at electrical inequilibrium with the exterior surroundings, and are attracted by them. The interior indifference and the exterior attraction now cause a separation, which is the larger the farther their mutual electricity is from the general electrical zero. At that zero there is indifference to the interior and exterior.

It is always the transant attraction only which is exhibited and expressed either as pressure or tension, or as forward or backward motion, according to the standpoint of the observer. The sun attracts the earth because the former is much hotter or more paternal than the latter; the bodies on the surface of the earth are attracted by the earth because the hot interior mass is at inequilibrium with them; the moon is attracted by the earth because the former is so cold or maternal; and the earth is paternal compared with the moon.

Gravity is the transant attraction in the magnetism between

earth and the ponderable bodies: weight, therefore, does not represent the entire attraction, but the attraction minus the repulsion between a body and the earth. It is for this reason, as we have remarked before, that the "atomic weights" of the chemical substances are not representations of the full materialities of them, and consequently the product of "atomic weight" and "specific heat," as materialism calls them, is not constant, but largest with the heavier substances.

The attraction between celestial bodies is transmitted by magnetic induction of the commensurate celestial atmosphere. A magnet, such as the earth, attracts the materity, and repulses the paterity, of the atmosphere, which arranges itself accordingly, and transmits the attraction by the law of its own local arrangement.

Absolute universal attraction is a monistic—extremistic mistake. Consistency would now lead us to a very delicate question. "Sir Isaac Newton's great law of gravitation" is based on the supposition that the velocity of a falling body commences with nothing, and then increases uniformly. We wonder what then has become of the gravity the body possessed before it began to fall, and which was then weight. It would seem to us that to drop a body means simply to change its gravity from weight into velocity, and that the velocity of a falling body commences, therefore, not with nothing, but with a certain quantity fixed by its average weight. Something to this effect, and a number of interesting consequences, are proved in "The Law of Nature;" but we shall not speak of it here, for who would dare to doubt the correctness of the only "law of nature" known to materialistic science "with positive certainty," and sanctioned by so many great authorities? Rather say that all mediums are frauds, and all spiritists lunatics.

13. Vaxantism is the law of sound, light and other such forces, as proved in "The Law of Nature." Sound and light are transmitted by spantomical fluxations of the successive maxima of materity and paterity in the air, etc., as illustrated in Fig. 3: those phenomena are not undulatory, but fluxatory, while the undulations take place rectangularly to their direction. This question, however, is of no great importance at this place.

Nature, as stated above, is the process in the infinite mass of

galom, or the galonium, of establishing galomal equilibrium : it is therefore a process of equalization. This process has two principal forms : first, the temperal, which includes the electrical ; and, second, the chemical, which is often accompanied by latent processes.

It is proved that two glasses of water, of equal volumes but different temperatures, when poured together, equalize their temperatures to a vaxometrical mean between the former ones. The water is now the temperal equatum of the former elements. Fig. 4 illustrates the law of equalization. *A* represents the temperature of the warmer water, its factors being, heat 8, and cold 4 ; *B* represents the temperature of the colder water, its factors being, heat 2, and cold 16 ; galom is 32. *E* is the du-ordinate at the middle, and represents the temperature of the mixture after equalization, its factors being, heat 4, and cold 8. If the colds and heats were 2×12 for the warmer, and 8×3 for the colder water, then the cold of the mixture would be 4, and the heat 6 ; the constant product being 24.

It is proved that this same law also rules chemical equalization, which is wrongly called "combination" by materialism, which has never been able to explain why the combination of two elements should not also be a combination of their properties. The masses are added or combined ; but their temperatures, electricities, and chemicatures are equalized, not combined.

A chemical substance is capable of equalizing with another such substance in different latentures. A latent-chemical process is that in which a gas changes first from a light to a heavier gaseous latenture (for instance, oxygen to ozone) by changing a part of its latent heat to temperal, and transferring it to the surroundings, before equalizing with the other chemical substance. In this way the so-called "multiple proportions" in chemistry are caused, for which materialism has the naïve explanation that one atom of the one element can combine with one or more of the other element. Materialism has really never explained a single chemical fact. On the one hand, it asserts the indestructibility of heat ; and, on the other hand, it loses heat at every temperal and chemical process, for which it gives no account, as is to be seen from Richmann's erroneous materialistic law of equalization.

Neither heat nor cold itself is an absolute indestructible entity ; but they are merely relative factors in the absolute and indestructible galom, changing at every equalization so as to

maintain the constancy of their product. This somewhat difficult subject is exhaustively treated in "The Law of Nature."

That point where the galomal factors are fully equal in every respect, temperally and chemically, is the zero of nature, for nature has here accomplished its object. The substance at the zero of nature is called "zeron."

Suppose the galomium were at equilibrium: there would then be zeron only, but no nature, for there would be no transant force anywhere, and no process of equalization; galomature would be uniform, and magnetism at a state of indifference. There would be no motion and no life, no forms and no changes. In regard to a zeronic condition of the galomium, even the idea of *time* becomes useless, because it is not applied to mass, but to action; yet in a condition of equilibrium, no actions take place.

The complete zeron has not even any interior motion which could cause light, nor any other transant passive or active force which could be sensed by us: it is insensible—it is dead. By such zeron the so-called "spirits" are substantiated.

14. Having now given a general outline of the principle and basis of galomalism, we are prepared to enter upon that interesting subject which is promised by the title of this treatise.

Organic life, the cause and object of which materialism, on its basis of moving atoms, has failed to explain, is the completest process of equalization in nature, by which the entire equilibrium of the opposite galomic factors is nearly if not fully attained. In an organic body, which is not a machine, but a natural laboratory, we find all the elementary processes again. Many kinds of chemical substances in all latentures are taken into the body, and there undergo a complicated process of temperal, electrical and chemical equalization; and the preponderant magnetic energies in this process express themselves as the forces of the organic being, including its sexual, mental and manual activity.

This life-process results in the production of a substance which is the equatum of all the different substances and conditions which were introduced to take part in it; and as these are taken from the extremest parts of nature, including the hardest metals and softest gases, the produced substance is necessarily at the middle of all these conditions, where the average equilibrium is attained, that is, at the zero of nature.

For this reason the zeron is neither solid nor liquid, nor aeriform; but of a latenture which is the resultant of all the others, termed the "zeronic" latenture.

There is one very important feature of the organic bodies which is well suited for the explanation of the fundamental idea of galomalism : this is sexuality.

In sexuality, feminality and masculinity are contravaxant. As the different exterior organic features of the two sexes are not essential, but merely the results of organic adjustment to necessities of life, we have to consider mainly the two opposite sperms, the male and female, both of which are of course massive. A chemical investigation of them will show that the female sperm has the greater materity, and the male the greater paterity, which is especially to be found in their chemical conditions, since the temperatures apparently do not inequillibrate much.

The hermaphrodite is a being which is father and mother both, and stands on an average at the natural zero of sexuality. By organic adjustment the separated sexes gradually originated, and with them father and mother as separate beings ; yet their difference lies in sexual gradation only. Some forms of civilization, which seem not fully to agree with the objects of nature, show a large number of persons of undecided sexuality, in which both the masculine and feminine tendencies are equally strong, so that these persons are neither decidedly males nor females : they are at the zero of sexuality, and from this zero a sexual gradation to both sides takes place. All persons on the maternal side are called females, and those on the paternal side, males, because in the former the feminine, and in the latter the masculine tendency is preponderant ; but an absolute woman or man is an impossible extreme. Some women are more feminine than others, and some men are more masculine than others. The undeveloped nipples on the breasts of males indicate a certain degree of feminality in them, and more such signs could be found respectively on both sides.

It is, then, only a question of sexual gradation from the zero, whether a person is to be counted as male or female; and the sexuality of every person could be represented by a duordinate in the contravaxant. Sexual love and hate are the magnetic energies which cause equalization between the sperms, which is the first step to that magnificent process of equalization which is called the life of an individual. As feminality is identical with materity, and masculinity with paterity, and as both these

tendencies in nature are equally strong, the numbers of male and female children, on an average, balance each other; and nature wants the woman to stand on an equal basis of right with the man. That with men the active force, and with women the passive resistance, is preponderant, could be shown from many experiences of life. It is a known fact that in cases of unavoidable destruction, as earthquakes, accidents at sea, etc., the women show more presence of mind and courage than the men, just because their passive resistance is the stronger.

No masculinity without feminality, and no feminality without masculinity. Now, according to spiritualism, feminality is a mere property or branch of masculinity (this is also shown by the fable of the creation of man, and spiritualism has always treated the woman accordingly); according to materialism, masculinity is a mere property of feminality (no materialist seems to have drawn this conclusion as yet, but it is a consistent and necessary one); according to the dualistic perceptions, masculinity and feminality are two mixed things (which, consequently, could be separated, and each obtained in a pure form); and, according to galomalism, they are the opposite sexual tendencies. Which is right?

15. Comets have a very paternal galomature; that is, they consist of a substance which has a very high chemical heat. It is probable that the nucleus and tail consist of the same chemical substance, but in different gaseous latentures. From experience we know that the tail of a comet increases on the way from aphelion to perihelion, and decreases on the opposite way. The reason is, that in the first case the increasing heating influence of the sun on the dayside of the nucleus causes a large portion of the substance of the same to enter a warmer or more paternal gaseous latenture, and then stream on both sides of the nucleus to the tail. As in the other case, with the return to aphelion, the sun's heating influence decreases, the tail cools, and a large portion of it enters the colder latenture and joins the nucleus again.

Apparently the sun's influence causes no chemical action on the nucleus of the comet; if it did, the substance of its tail could not return to the nucleus merely on account of cooling, but this can take place if the entire process of the increase and decrease of the tail is only a latent one.

The very paternal tail is slightly attracted by the more maternal nucleus ; but it separates from the sun because the exterior world of fixed stars attracts it much stronger than the hot sun, which inequibrates but little, if any, with the tail. This distribution of the magnetic energies causes the position of the tail on the night side of the nucleus, opposite to the sun ; but it extends far beyond the shadow of the nucleus.

On the planets the heating influence of the sun causes a similar process, but in a very much more complicated form. The crust of the earth is a mixture of many different chemical substances in many latentures, and is covered by an atmosphere of various gases. These substances are caused by the sun's heat to enter temperal, electrical and chemical equalizations, accompanied by latent changes. The very essence of mass, as explained before, demands that this process continue to perfect equilibrium between the opposite galomic factors. Temperate or zeronic temperature is required to perfect the process. As, on account of the irregular distribution of the different substances and conditions, the entire mass of the earth could not uniformly enter the process of equalization, some small parts gained advantages over others, and obtained properties which enabled them to attract and absorb the required chemical substances ; and these parts individualized, and in long periods of continuous struggle after equilibrium and happiness, became digestive and generative—they gradually became organic bodies.

The "Darwinians" have shown empirically how these organic bodies, in adjustment to circumstances and necessities, have developed to the different species which are now living on the earth's surface.

The cause of organic life is to be found in the necessity of the inequibrating substances on earth to equalize under the influence of the heating sun, and the object of life is the establishment of perfect galomal equilibrium: organic life is the only process in nature which accomplishes the object, and leads to the zero. The final products of organic life are called "zeroids," which means bodies on the zero of nature: there are consequently vegetable, animal, and human zeroids, of which the human are identical with "the spirits and angels of religious and modern spiritualism." The difference between the zeroids is merely one of form and organization.

The world of zeroids is called the "zeronium." It is slightly

attracted by the globe of the earth, and located in the atmosphere, where its average galomature is nearest to the natural zero, which is mainly the case in the shadow of the earth, where there is temperate temperature, and such a mixture of chemicalures of the atmospheric gases that they also are, on an average on the natural zero. For these reasons the zeronium, which is illustrated in Fig. 6, becomes the tail of the earth on its night side.

16. Organic life consists of two very different parts: the first part is the productive or *protoidic* life in the form of a sensible heavy body, and the realm of this life is called the "protonium"; the second part is the *zeroidic* life in the form of an insensible light body, and the realm of this life is the "zeronium." In the body of the *protoid*, the *zeroid* is produced by the process of galomal equalization. The religious and modern spiritualists term the protoidic life "the mundane and earthly" and the zeroidic, "the heavenly and spiritual life"; but these terms, including "spirit" for zeroid are based and dependent on false theories, and cannot, therefore, be accepted by galomalism.

Our protoidic life is in many respects the most important, for here the process of equalization has its original and most significant form, which is decisive for our future zeroidic life. As a process of equalization, protoidic life shows all the features of such. The inequilibrium of the food and air which we take into our bodies is very considerable: some of the harder substances of our food are more than a hundred times as material as the soft atmospheric air which we breathe. The larger the inequilibrium, the larger the transant magnetic energies which in the life-process are expressed as pulsations, fluxations, vibrations and sensations in all parts of the body, further as the pressures and tensions and the manifold exterior motions of the body, and the magnificent compositions of magnetic actions in the brain, all of which are the expressions of the complicated process of equalization which is constantly going on in us, and the summary form of which is our life. The complication of this process has resulted from a long series of organic adjustments, and ought not to impose on us, since it can be analyzed and reduced to a number of simple elementary processes which are either temperal, electrical, chemical or latent. The most imposing form of the process is to be found in the brain, where it appears as our mentality. Thoughts are compositions of vi-

brations and fluxations in the brain, which are formed according to the experiences made through the medium of the senses. The basis of galomalism promises a thorough explanation of all the psychical phenomena, but we cannot go into details at present.

It is remarkable that human philosophy could come to such unnatural conclusions as, on the one hand, to disconnect the resulting product of life entirely from its natural cause, almost placing it as something which had already existed before the life-process commenced, and, on the other hand, to deny any lasting result of this process, in spite of the experience that every other process in nature—for instance, a simple chemical process—has a product.

With the increase of zeronic ripeness, the life-process becomes more quiet: the nearer two suspended electrical balls are to the electrical zero, the smaller their mutual attraction, and, after equalization, their separation. Gradually the productivity of the organic body is reduced to a minimum, and then the ripe zeronic part extracts itself from the solid and liquid part of the protoid and enters the insensible zeronium as a zeroïd. This act of extraction of the zeroïd from the protoïd is the "death" or the "passing-over" or the zeronization, of the individual. Zeronization can be caused also by injuries and sickness of the protoïd before zeronic ripeness is attained; but in that case the premature zeroïd who arrived in the zeronium with the effects of the cause of his zeronization, and is suffering from them until gradually being healed as far as possible, continues the process of equalization in the zeronium according to the conditions in that sphere, until, with an age of about a hundred to a hundred and twenty years, ripeness is attained, after which the process is limited to the restoration of the forces which were expended in voluntary actions and deviations from the zero, which, however, do not extend far into the extremes.

17. Modern spiritualism, which as explained before, is more properly termed as "modern mentalism," since it perceives reality as the sum of "matter and mind" as two unitary entities, asserts, like religious spiritualism, of which it has inherited most of its ideas, that the beings in the other life are "spirits" or minds,—abstracted and immaterial minds or souls. Since the modern spiritualists perceive a mind as a pure force, their standpoint is

not in harmony with the results of the experimental sciences, which show that an abstracted magnetic force cannot exist without a physical and massive basis. Thinking without brains is as impossible as seeing without eyes or hearing without ears, etc. The mental hypothesis as basis of an explanation of a second individual life and the mediumistic phenomena, is a failure in every respect, which is also acknowledged by some thinking spiritists, since the "spiritualists" have not succeeded in explaining a single such phenomena, but have lost themselves in meaningless phrases. This, though, does not hinder some semi-educated phantasts from making all kinds of wild and entirely unfounded assertions in regard to the future life, of which some even exceed the fabulous stories of the most daring philosophers of religion,—a fact which has discredited the cause of spiritism in the eyes of many materialists who would otherwise have been more favorably inclined to it. It is a traditional feature of spiritualism (mentalism) that it dislikes the natural sciences; and although the modern spiritualists among the spiritists are forced to investigation, yet their investigative desires generally do not extend beyond the ascertainment of the mere facts that the "spirits" exist and manifest. "Facts," a modern spiritualistic periodical, in an article on "The Subject of Investigation," says the following: "*Physical and spiritual sciences are as distinct as chemistry and music.*" This sentence well characterizes the modern-spiritualistic "science" and mode of investigation. Physical science is the science of nature, "physical" being derived from the Greek word "physis," for nature. If, now, the investigation of the "spirits" and their conditions does not belong to physical science, it is to be supposed that they themselves are not in nature or are not natural, physical,—a supposition which does not harmonize with the limited statements of some zeroists, and is hardly acceptable to anybody who is somewhat acquainted with nature and the "spirits." Many spiritists, therefore, are inclined to think that the "spirits" belong to nature.

The only earnest trial that has been made so far to explain the mediumistic phenomena on another basis than that of abstracted minds, and in harmony with the positive natural sciences, is that of the eminent astrophysicist Professor Zoellner of Leipzig: he proposed the hypothesis of a fourth dimension of space. It is a hypothesis as every other hypothesis: the phenomena are for the senses and memory only, but the reason

wants theories and laws; and if such are not to be had, hypotheses must, for the time being, fill the place. If the hypothesis is one the probability of which is intended to be sustained by facts, it leads to investigations, and in that way does its good, even if it be false. Zoellner's valuable experiments with the medium Slade, which were partly calculated to advance his hypotheses, were very successful in exploring several until then unknown facts in regard to mediumship, and have convinced many people of the existence of beings in another life, and of the fact that they can manifest themselves through the aid of media in various ways; but as to the hypothesis, he himself said that we could not imagine a fourth dimension of space. Yet he has argued and founded his hypothesis as well as the atomic hypothesis ever was. We cannot accept either hypothesis, and are in a position to explain the facts referred to without a new hypothesis, merely on the mathematically established law of nature.

Before Zoellner became acquainted with the said facts, he was a consistent materialist: that he afterwards took refuge with such a strange hypothesis shows how helpless honest materialists face the fact of another individual life and the phenomena connected with it.

Professor Zoellner, who is now in the other life-sphere and a member of our band, authorized the statement that he now thinks the hypothesis of a fourth dimension of space inappropriate, but fully maintains the truth of the facts which he tried to explain by it.

18. The sun-god breathes of its "spirit" (heat) into an earthen clod, and in that way creates men. The sun is our father, and the earth our mother. Part of the heat which comes from the sun is fixed to the earth by the chemical and latent processes mainly: it swells a portion of the earth, and gradually creates that zeronic mass of small individual bodies, which forms the tail of the earth. With the zeronization of every organic body, a small particle of substance is taken from the globe and added to the tail. The effect of the sun's heating influence on the earth is, then, to reduce the globe and enlarge the tail of the earth by means of the organic life process.

Fig. 5. of our plate illustrates the tail of the earth or the earth's zeronium, showing two views of it. It extends like a broad thick falciform bow over the nightside of the hot and tem-

perate zones of the globe. To obtain a somewhat correct measurement is a very difficult problem, since the protoids cannot perceive the zeronium with their senses, and the zeroids are in a condition which does not permit them to labor much: with a few exceptions, they do not even know that they belong to the earth's tail. By the co-operation of mathematicians on both sides, many dimensions may be determined and with this we have commenced. In trying to get at a positive knowledge of the height of the tail, we proposed that some of our friends should first travel the distance between two cities in order to determine their mean velocity, and then travel up and down from our home to theirs, by doing which, at first glance, all required factors for a calculation of this distance seem to be given. Three mature zeroids travelled from New York to Boston and back, one in 25 and two in 30 minutes respectively. The distance is 230 miles, which gives a velocity of the zeroids of about 1,000 miles in an hour; but these journeys took place through the heaviest and most resisting layer of the atmosphere. (The modern spiritualists claim that "spirits" travel as fast as thoughts, but our zeroids are too concrete for such velocity). Afterwards, with the aid of a good medium and careful preparations against the interference of clerical zeroids, we prepared a table of time-measures from different reliable zeroids of their up and down trips at different times of the night. It would require too much space to give the interesting results in detail. They show, first, that at the same hour of the night, the younger zeroids travel in the shortest time, about proportional to their age. Mature zeroids, when belonging to the same nationality, require about equal time. A twenty-year-old zeroid travels in half the time used by a mature zeroid for his trip, sometimes in still less time. Since the velocity does not differ much, we have generally agreed that it is caused by the different heights of the locations of their homes. Starting at 7.30 P. M. from New York, the up and down trips showed the following figures: zeroids 20 years old, 17 1-2 minutes; 38 years, 19 minutes; 58 years, 25 1-2 minutes; 80 years, 30 minutes; mature zeroids between 40 and 45 minutes. These figures also agree with the lower and higher spheres of the "spirit-world" in which our co-operatives are living, and we have generally agreed that the different heights of their homes are caused by the differences in specific weight, depending on age; mature zeroids float in the proper zeronic layer of the atmosphere, and premature zeroids

are in lower layers wherever the specific weight of the air balances their own. The young ones can force themselves up into the highest spheres by straining their organism for this object; but they do not feel comfortable up there, and soon sink down again to where they belong.

The second very important fact which grows out of our measurements, and which confirms our former conclusion that the zeroids were located in the shadow of the earth, was this: that the nearer to midnight a zeroid made his up and down trip, the shorter time did it take him.

Mature zeroids, in this respect, made the following figures: 6 P. M., 50 to 55 minutes; 8 P. M., 42 to 45 minutes; 10 P. M., about 32 minutes and 12 P. M., 22 minutes; thence it increased again in about the same but reversed proportion. Many variations of distances are to be found, but with zeroids of the same nationality and belief they are about the same. We have agreed that the zeroids are distributed in the tail according mainly to the nationalities to which they belong, but also according to their beliefs, religions, ages, education, etc. For this reason two zeroids of equal ages but different nationalities often make very different times. It is not at all beyond possibility to determine the location of every nation in the tail of the earth, and to draw a general map of it, on which the home of any one can be shown after making the necessary trips.

Now if the mean velocity of the trips from New York to Boston and back were also the velocity of the up and down trips, the height of the tail would not exceed 300 miles; but we came to the conclusion that the velocity of travelling zeroids increases as they rise and as the materity or resistance of the air decreases, and that near their homes the velocity is from 10 to 20 times as large as in the lowest layer of the atmosphere. We have not obtained any definite figure in this respect, and can do without it, calculating the distances on another basis. We take Galileo's measurements as an example. He made the trips from New York to his home at 8 P. M. in 45 minutes, at 12 P. M. in 22 minutes, and at 4 A. M. in 32 minutes. We have now his three starting-points, as shown in the northerly view of the tail (Fig. 5), and the proportion between the distances of his home from these points. If three points are given, and the proportion of their distances from a fourth point, it is then possible, by a mathematical construction, to find the fourth point. In fact, there are two such points,—one above and one below;—but the

lower one falls into the globe of the earth, and the upper one remains as the point sought. Where the straight lines in the northerly view, starting from 8, 12 and 4 o'clock at night, meet with the proportion of 45 to 22 to 32, is Galileo's home. We leave out of consideration that in reality the trips made at 8 o'clock could not take place along a straight line, since this passes partly through the globe : most probably the lines from 8 and 4 o'clock were bended upward, but for our present object the straight line will do.

As is to be seen from the figure, Galileo dwells in the western portion of the tail. Under and in his home it is always 1 o'clock at night, yet he does not complain of darkness. To determine his home in the westerly view, and thereby the exact position of it in relation to the globe, it would also require three measurements at 1 A. M., in the north, south and at the equator. The height of the tail is seemingly equal to the radius of the globe of the earth, as is to be seen from the figure.

Our discoveries do not harmonize with the strange statements of some manifesting zeroids, who claim to be able to go to other planets and fixed stars ; nor with the visions of some "great seers" and the teachings of modern spiritualistic authors, who place the "spiritual universe" between the fixed stars—the farther away from earth the better. After all, the future life is also an earthly life.

19. We shall now give some brief descriptions of the condition of zeroids and their relations to the protoids. Our explanations will agree but little with the teachings of spiritualism, are, in fact, often the very opposite to them : but we stand on a safe scientific basis, and, besides that, when it comes to testimony from the other world, we are authorized to state that the following philosophers in zeroidic life are willing to appear before any responsible committee of spiritists, through the aid of any good medium, and in their and our presence give testimony in favor of the explanations forwarded in this treatise. They are A. Comte, Confucius, H. Davy, B. Franklin, Galileo, Kant, Kepler and Zoellner.

The zeroid *has* a soul, or mind, but it is not an abstracted mind. It is to be understood that the zeroid ("spirit") is a physical, massive and space-filling body. If mass in general were matter, the zeroids would be material ; but, since it is

galom, the zeroids are galomal bodies. Their mass is not essentially different from that of a rock, or a pig, or a rose, but the difference is solely one of condition and organization. If we destroy a zeroid, for instance, by an electrical shock, and then analyze the remains, we shall find that it was a complicated equatum of known chemical substances, such as iron, sulphur, oxygen, hydrogen, etc. The investigation of the "spirit-world," therefore, belongs entirely to "physical science," the more so because there is no other science but that: a "spiritual science" does not exist.

We shall now touch a very critical question. The spiritists, for whom these explanations are mainly intended, are more or less acquainted with the extravagant assertions of the modern-spiritualistic authors, that the "spirit-world" is (mentally) higher than ours, and is inspiring and leading the people in this life. This assertion is based partly on traditional errors, and partly on some bare statements of zeroids. "The law of eternal progression," as applied to the mental capacity of the individual, which has all the characteristics of an arbitrary hypothesis, is the main basis of this theory, which, with the zeroids, is also supported by a remarkable delusive phenomenon to the effect that they can, through magnetic induction, feel our thoughts as if they were their own, and then believe that they inspired us with them. The communications of the zeroids do not in any way show a mental superiority, rather the contrary; and a greater contrast between theory and the respective facts, as in this case, could hardly be imagined. But then, the modern spiritualists have some excuse for that: they blame the media.

Thirty-eight years of questioning the "spirits" about their world has resulted in almost nothing that would be of scientific value. Thinking spiritists say that they know nothing positively about the matter, but that the "spirits" exist and manifest. The communications of zeroids show that emptiness of new ideas which is so peculiar to *mental unproductiveness*. Not a single new idea has come from them; and they refer in their statements almost exclusively to our sphere of life, and tell us not much more of theirs than that they are happy and often with us. This entire failure "to be enlightened by the spirit-world" in regard to that world, caused us to go to work ourselves and find it out, and then the band of the named philosophers became very useful in testing the truth of our conclusions; but they have not made a single positive proposition themselves, and, as they now

agree with us, are not in the condition to do it. "The brightest light appears darkened if seen through a dull glass" or "the best musician performs poorly on a bad instrument," such are the excuses of the spiritualistic spiritists for the discrepancy between their theory and the stubborn facts. But the much-suffering media are innocent: they have nothing whatever to do with the ideas that are communicated through them, except that they furnish the opportunity and strength for the communication, and in that way even increase the mental strength of the zeroids, as we shall see later. In materialization-seances the zeroids speak to us independently of the medium's organism but here also the desired explanations are wanting.

20. The productiveness of men is threefold,—sexual, manual and mental; all of which are physical and dependent on the inequilibrium of the opposite magnetic energies in their bodies of which they are different forms of expression. As the preponderant or transant force is the smaller, the smaller the inequilibrium, we easily perceive that in zeroidic conditions, where no inequilibrium exists, there is no force which could express itself as mental productiveness, or in any other way. The zeroids being the products of a complete process of galomal equalization, are in that condition which is signified by the term "dead" in its original meaning: they are passive and unproductive beings, although this is not perfectly so at all times, since they often deviate a little from the zero. We refer again to the known experiment with two suspended electrical balls as a good illustration. If they are inequilibrating between themselves, they show a preponderant attraction to each other: if they equalize and still inequilibrate with the outer world, they are attracted by it and separate; but if also equalized with that, they hang down perpendicular and indifferent, because their electric-ity is now zeronic. The assertion of some physicists, that bodies of equal condition repulse each other, is false; they are without difference, or indifferent; repulsion and attraction between them are equal, but, in case they are not equalized with the outer world, they will be drawn apart by it, as is the case for instance with smoke: this separation is not caused by interior repulsion, but by exterior attraction.

With the activity and productiveness of men, it is also merely a question of equilibrium and inequilibrium. In proportion to

the size of the body, children show the largest activity, mainly in the form of locomotion. After that, the activity of men becomes useful productiveness which culminates at that age when they have to build up not only themselves, but also their children; for this is a matter of natural necessity, and by organic adjustment living beings are evolved to that effect. After their children are on an average grown up to help themselves, their productiveness declines with the further advance of age and zeronic ripeness, until, after the process of equalization in the body is nearly completed, it is reduced to a minimum, first the sexual, then the manual and soon thereafter the mental. There is no longer necessity for it; nature has attained its object, it has brought an interior portion of the man into galomal equilibrium; and as Nature acts by necessity only and can therefore not waste force, it no longer furnishes any preponderant force for productiveness to such men, who on the other hand have no use for it and are fully satisfied with their condition. After such persons have zeroized, there is still less necessity for productiveness, and indeed, very much less of the latter. The zeroids are no childish idiots: they are in a normal, healthy and happy condition, which cannot be compared with sickly conditions in this life; but they have no expressible force for production of any kind to such an extent that it could be favorably compared with ours. In regard to sexual productiveness, the fact is testified to by the manifesting zeroids that every being in their world has originated in ours. Yet premature zeroids, who died too early and are still in the general age of sexual productiveness, have their real love-affairs. This matter is of no great importance at present. Manually the zeroids produce their clothes, etc., out of vegetable and animal zeron, somewhat after our fashion, but in a much simpler manner; and an industry as we have it is not to be found in the zeronium. The raw materials for their goods are abundantly furnished them by the protonium, and nobody in the other world is needy: the zeroids are therefore free from the troubles and sorrows connected with the care of sustenance in protoidic life. Their food consists partly of vegetable and animal zeron, and partly of the vapors of our food: of this also they have more than they need. Premature zeroids eat as much as protoids of the same age; that is, measured by volume, and not by weight: mature zeroids who are more than a hundred years old and all about of the same condition, eat but little. Since

their food is not as material as ours, and, therefore, not as much inequilibrating with the air which they also breathe, its process of equalization does not furnish so much expressible force as ours.

Mentally the zeroids are also very limited in their productions. Every language that is spoken in their world is developed in protoidic life, every song they sing is composed here, and every philosophical system or scientific inquiry they discuss is originated in our life-sphere, that is, in the protonium. For this reason, in their communications there is not to be found a single new important idea of general application which cannot be traced back to this life; that is, which the zeroid has not taken with him when leaving here, or learned of us, directly or indirectly, since he is there. For this reason the "spirits" talk so much of our life, and give us so much random and dangerous advice, but tell us almost nothing of their life-sphere because they are incapable of analyzing it. Of course, the zeroids themselves do not miss the productiveness they had here; on the contrary, they have still more than they need; and as everything in their world is in natural and harmonious proportion again, they think themselves even superior to us, and perfectly capable of being our inspirers and guides. But the error shows itself in full light when they come in real contact with us through the aid of media. Read the authentic communications of zeroids on philosophical subjects: what are they beyond a bombastic and often religiously meaningless phraseology? Of course, some people find them "exalted and wonderful"; but only because they cannot get a meaning out of them. It is said that the conditions in "heaven" are such that they cannot be expressed in earthly language; but the zeroids cannot really express them in any way, not even among themselves; not on account of an inefficiency of language,—for if words were wanting, they could invent new ones and define them to us,—but because their zeronic brains stand still, and are incapable of the labor required for an investigation of that kind. We must find it out for them and us.

21. Some people will ask, what, then, is the object of a future life, if it is not a *higher* one than the present? We have to answer, that it is indeed a higher one, for it is high up in the atmosphere, although sometimes the zeroids are as low down as we are; but perhaps this highness is not meant, but a highness of mental capacity.

Let us ask, What do you really want? Happiness, of course. Well, "equilibrium" is merely another term for satiety, satisfaction, indifference, happiness, etc. Wherever there is equilibrium, there is happiness; and were things are out of equilibrium, there is unhappiness. The zeroids almost unanimously tell us that they are happy, very much happier than they have been here; and a person may be very much mistaken about his capacity in production, but always knows whether he is happy or not. The zeroids generally mistake their condition of satisfaction and happiness for one of superfluous or expressible strength. Productiveness is required to attain to happiness, but it is not identical with it; we are, rather, happiest when we have all we want and need not to produce any more. As long as we are wanting, we are not happy; and in protoidic life, perfect happiness cannot be attained. But the older the happier, and when we are fully equalized with the whole world, at perfect equilibrium in zeronic life, then are we satisfied and happy—and dead. The future life is a very much higher one than the present, not higher in productiveness, but higher in happiness. Protoidic life is the life of labor and production, including the troubles connected with it, for it is the life of vigorous exchange of substance and complicated equalization; but the zeroidic life is the life of rest and happiness, yet it is a misfortune for anybody to enter it before being ripe for it, as we shall see later on.

In regard to the relation of the zeroids to the protoids, there is, however, one remarkable phenomenon, which has deceived the zeroids generally and made them think that, although they produce nothing in their sphere that would be of importance for us, they do it in ours, through our brains and other organs by inspiration and guidance. This is to be explained as follows: if there are two pianos in a room, and we play on the one, it will "inspire" the other with the same music, because the string of a certain note sets the same string in the other piano into vibratory motion by an action which is called "inverberation." The inverberated music of the second piano is often strong enough to be heard. Instead of two pianos, we now observe the influence of two individual brains on each other, which is in principle the same. While we are thinking, an exchange of substances and a vigorous galomal and magnetic process in our brains take place, supplied by our food and breath. The ordered composition of the magnetic actions, the tensions, vibrations and fluxations, form our thoughts and feelings. Now, there is every reason

to say, that the near surroundings are more or less induced by these magnetic actions, and that our thoughts are transmitted through the skull and atmosphere to another person's brains, who is standing near by in favorable condition and position. This induction then causes in his brains the same thoughts and feelings, but without telling their origin: the second person generally feels them as if they were his own. If both persons are protoids, the case is identical with mesmerisation, mind-reading, etc.; if both are zeroids, it is the transmission of thoughts without language, of which the zeroids tell us; if the inverterator is a protoid and the sensitive a zeroid, which is the common case, it is identical with "inspiration from the spirit-world," for the zeroids mistake and reverse the case; and if the inverterator is a zeroid and the sensitive a protoid, it is identical with feeling, writing, speaking, etc. Mediumship which is not so very extensive. There is hardly a writer or speaker who has not standing at his side some zeroids who feel his thoughts at the moment when he produces them, but feel them as if they were their own, and as they see the protoid writing, or hear him speaking these thoughts soon afterwards, they conclude that they have "inspired" him. Zeroids need not study astronomy to inspire an astronomer; they need not know our life to tell our past and to prophecy our future through a medium in perfect harmony with our own opinions, which they just have felt; neither need they know anything about our personal affairs to "inspire" us with our private letters: all they need do is to stand at our side and lay a hand on our head, or take another favorable position, and then the "inspiration" goes on. For this reason there is hardly a zeroid who does not think himself capable of inspiring even the most learned persons in our life with what they write. When such "inspired" person passes over, others who claim to have been his "inspirers" claim also authorship of his works in this life, and the real author is perplexed, and doubtful whether the thanks of his fellow-men in the protonium are really due to him alone, or whether he has merely been "the medium of the spirits who worked through his brains." There is much injustice in this which needs to be corrected. The truth in all these cases, is that the zeroids do not "inspire" us, but we inverterate them with our thoughts without knowing it. The so-called "higher sources" of our productions are not those beings in the other world, but the beef-steak and other good things which

we consume. The zeroids also claim to "guide" us in our other doings, and this goes even so far, that manifesting zeroids have often claimed "spirit-parentage" of some persons. Spiritualistic spiritists have tried to explain this strange claim by referring it to mental influence on the parents before and during pregnancy, but that would hardly justify the claim of parentage. Our extensive investigations have led to the conclusion that we poor mortals can hardly enjoy a single agreeable sensation without there being some confounded spirits who enjoy them with us. There is an opinion among the zeroids that our "physical parents" were the mere instrument for the production of our "spirits" by our "spiritual parents."

Many people have been ruined financially, morally and physically, by going to media and asking the "spirits" for advice in personal affairs, and then following the advice. The advising zeroids, even if they are our best friends, which is often not the case, are utterly incompetent to obtain a thorough knowledge of our affairs and to judge of them in such a manner as to be capable of giving advice ; but, on account of their wrong ideas of the relation of their world to ours, they believe that they must guide and advise in some way ; and as they are entirely over-estimating their strength, they will advise, prescribe and predict, but it is a dangerous kind of guess-work, which in nine cases out of ten, turns out wrong. Nobody in protoidic life should be so childish as to ask zeroids for advice in personal affairs. It is to be hoped, that in a not too distant future, laws will be made by the community to regulate the use of mediumship in this respect.

22. The insensibility ("supersensibility") of the zeroids has been the main cause for denying their existence. We can sense preponderant forces only, while forces at equilibrium cannot express themselves on our senses. For this reason a substance at galomal equilibrium is insensible that is not perceivable by our senses. The zeroids, consisting of such substance (zeron) are therefore without sufficient expressible force of either active or passive character to make themselves felt to us. We feel bodies on account of their materity acting resistingly on our nerves ; the more material a substance, the easier can we feel it. Gaseous substances are almost insensible, and there was a time when people thought that the atmosphere was not massive

just as people to-day think of the "spirits." Still less can we feel those massive bodies which we called zeroids, because their materity is fully expended in balancing their equally strong paterity, and can therefore not resist an exterior force. The active heat in the condition of the zeroids is in the same predicament: it is used in balancing the equally strong passive materity and consequently cannot cause light, nor can it effect us as warmth. It is evident that the zeroids have no force for the causing of sound which could be heard by us. Zeroids are transparent, because their own spantoms, like those of the atmosphere, are very weak, and their substance transmits, therefore, any spantomical fluxations of materity and paterity as they receive them, be these now luminous or sonorous fluxations. We can therefore neither see, nor hear, nor feel the zeroids. But this is not absolutely so, since there have always been sensitive persons who could slightly see or hear them under favorable conditions. In former times the number of sensitive media was greater than now; but nature requires that the zeroids should not interfere with the world of the protoids, and accordingly the protoids were evolved by the continuous survival of the unmediumistic. Those persons who were sensitive to the influence of zeroids had to die out, partly because their health, especially their nervous system, was impaired, partly because they were pursued by the religious and other authorities for doing something which did not harmonize with their (the authorities) teachings. The Christian authorities especially have treated those unfortunate sensitives and media with the greatest brutality possible by burning them as witches. Since those barbarians lost their power on account of the liberating influence of materialism, the media are treated with more humanity by imprisoning them as lunatics in insane asylums.

Another reason why the people had to grow less and less sensitive to the influence of the zeroids, is that wherever they perceived the zeroids by their senses, they were ashamed of their sexual and digestive instincts, of their "carnal mindedness" and entirely unnatural endeavors to suppress said instincts and "live a holy life," which would be pleasing to the omnipresent "holy angels from heaven," were the consequences. Cloisters, the holy orders, the costumes of the clergy (which were intended to disguise their sexuality), and other such features in the history of religious spiritualism, have grown out of

this painful struggle of the sensitive media against their own nature. These holy people died without descendants, but the less sensitive people who performed their natural functions without paying attention to the zeroids, were prosperous and rich of children, and they transmitted their insensitiveness to the next generation, this again by a higher degree to the next, and so on. This continual survival of the unholy has resulted in all mankind being insensitive to zeroidal influences (except some who become unusually sensitive through practice).

This process of "evolution," which has as terrible a path behind it as any other such process, has always resulted in the survival of the most unmediumistic, and is the reason why the people of to-day are fortunately so insensitive to the influence of the zeroids. The comparative weakness of the zeroids, on the one hand, and the organic adjustment of the protoids, as to insensitiveness in this respect on the other hand, are the combined causes for the zeroids being insensible to us. There is no other property of the protoids for which nature could be praised higher than for this. But it is also a good thing that there are enough sensitives left to serve for the practical demonstration of the existence of zeroids.

Many spiritists believe that "a spirit, when returning to earth-life in the seance-room, can take any form he pleases"; that he can come as adult or as child, etc. For this opinion there are two reasons—a theory and a delusive fact. The theory is spiritualistic or rather mentalistic in that the "spirits" are *immaterial minds*, which are not bound to a certain form, and, if *materializing*, may take any form they choose: the fact is, that the zeroids often show themselves in very different forms, which may be taken for different persons. But, if it were true that they could take any form they please, the zeroids could be blamed for generally coming in forms which make it necessary for them to give tests of their identity by statements; but it is not true. The zeroids, as massive beings, always look as they do when appearing to us in full and complete form; but they can and often do leave parts of themselves unmaterialized, for instance, the beard or parts thereof, and in that way they appear different to us; yet the unseen parts are there nevertheless. Zeroids cannot change their bodily formation any more than we can ours. During the first years in zeroidic life, zeroids undergo changes much faster than later on: premature zeroids keep on growing until they have attained zeronic

maturity; and those who pass over in "old age" and apparent ripeness take with them some abnormal conditions, like white hair, weak senses, etc., which require adjustment until a normal condition is attained. If their constitution is not injured beyond recovery they have the color and form for which they were originally designed by nature, and which, from an artistic standpoint, may be called the ideal formation of said persons, which cannot safely be compared with the form at any age in protoidic life, but is nearest to that in middle age.

Zeroids can go through porous bodies, such as woven curtains, wooden doors, etc.; but this is the more difficult the smaller the porosity of these bodies. On account of the zeronic magnetism of zeron, in which cohesion and its opposite are about equally strong, the passage of a zeroid through a porous door is similar to the soaking through of a liquid, except that it has no adhesion to the door, and that the different parts of its body maintain their relative position to each other, separating slightly only during the passage, according to the formation of the pores. Windows and plastered walls are not porous enough for the passage of zeroids, and most rooms can be entered by them only through the wooden doors.

23. Mediumship is an important subject of investigation; it has many phases, which can really be reduced to two main branches of mediumship—inverberation and galomalization—which we shall try to explain in outlines.

Inverberation is a term of physical aspect, signifying the transmission of vibratory motion and magnetic induction from one active to another passive body of similar organization, either by direct contact or through the medium of a connecting and conducting substance, such as the atmosphere. As stated before, one piano, when played, inverberates another piano, if near by, with the same melody; for the explained fluxations of materity and paterity, which are caused in the atmosphere by the vibrations of, for instance, the string of the note A will strike the same string of the other piano in a tempo which corresponds with the tempo of vibration of that string, and consequently gradually cause its sounding. Since the entire orderly composition of such soundings forms a melody, this is now inverberated from the first piano to the second. The telegraph is a case of electrical inverberation. Thoughts are orderly composi-

tions of magnetic actions in the brains, underlied mainly by chemical actions. The successive magnetic inductions and fluxations caused by such actions in the brains, extend beyond the limits of the thinkers body, and may be transmitted to another person's brains, either by simple iniverberation or by this and induction ; but since such induction is merely a special case of iniverberation, we may agree to call this entire process "mental iniverberation." It is also a fact known to many clairvoyant media, that, while a person is thinking forcibly, a slightly luminous substance (which consists of some chemical equata as the result of the thinking process in the brains, and is wrongly termed "perispirt") emanates through the skull, and in a dark room can sometimes be seen by clairvoyant sensitives as a ring of weak light around the head. In former times this phenomenon was thought to be a shine of holiness, called "the halo of glory," or, in art, "the aureola." This substance, though, does not consist of "thoughts," and is not transmitting the mental fluxations any more than the atmosphere : it is simply secreted in the life process of the body, or especially of the brains.

Two brains, when in favorable condition and position, can influence each other similar to two pianos ; but, instead of sonorous compositions, they iniverberate thoughts and feelings, which do not essentially differ from the others. A sensitive medium is able to become conscious of the composition of the iniverberation from the other brain, and thereby of the thoughts and feelings of the iniverberator. Since the operations of our brains are to a large extent leading those of our other organs by magnetic induction through the nerves, the iniverberator can, under favorable circumstances, entirely control the organism of the iniverberative medium, and make it do anything he pleases. Iniverberation is identical with mesmerism, somnambulism, mind-reading (psychometry), inspiration and the known phases of writing, speaking, drawing, playing, etc., mediumship. Zeroids are very easily iniverberated, since their brains have but little passive resistance against such influence : they consequently can easily sense our thoughts, but feel them as if they were their own ; and therefore, as stated before, their universal mistake in believing that they inspire and guide the protoids. The latter though, are much hardened against such influence, and can attain to consciousness of them only through practice.

Many iniverberative sensitives are imprisoned in insane asylums by the co-operation of bad and low zeroids and igno-

rant materialistic doctors. These unfortunate people have their "spells" when they claim to be another person than themselves, or say other such things by inverberation of a zeroid, which, in the judgment of their physicians are sure signs of craziness. It depends, of course, on the definition of "insanity," whether inverberative mediumship is to be ranked as such or not. Anyhow, it wants to be treated in a different way from that in which materialists treat it unsuccessfully in the asylums. All that is necessary is to make such persons acquainted with the real facts, and then teach them how to avoid and resist the inverberating influence of the zeroids, and how to distinguish between their own and the inverberated thoughts. One characteristic feature of the latter is, that they come suddenly without connection with former thoughts, and are so soon forgotten. Generally they are not clear thoughts, but general feelings of discontent, or that something bad is to come, or that a certain transaction is dangerous, or that a friend is in danger, etc. Most cases of suicide-mania belong to this class of mediumship. Knowledge of the cause of such mania is the best cure for it, and it is for this reason that the spiritists have such a remarkably small representation in the insane asylums; and those who are there could just as well be free, because they are harmless, and held there mainly on account of the unjust prejudice of the materialistic doctors against spiritism. Most practicing and experienced media are often troubled with temporary mania, and should have careful friends near them, because their worst enemies are the clerical zeroids, who try their best to stop the labor of media either by murdering them, by suicide-mania or making them do other things, which will bring them into all kinds of calamities and thereby unfit them for practising mediumship.

"Obsession" is a term from olden times which carries with it the story of the horrible crimes committed on inverberative mediums. From our own personal experience, we could tell of several such startling cases of obsession; but we shall only repeat, that it is an immeasurable blessing to mankind, that by the continual survival of the most insensitive, the organic adjustment of men has been such that to-day the number of inverberative sensitives is comparatively small. If all the zeroids were good and wise, inverberative mediumship would not be so dangerous; but as the facts are, one-half of the zeroids have not gone through protoidic life, are inexperienced and un-

wise, and have no true apprehension of our sufferings. They think it great fun to trouble a medium, and accept no arguments to the contrary. To tell them of pain is like telling a blind-born person of light: for this reason, our own brothers and sisters in the other life can become our torturers, as we have seen. Progressive workers in science and philosophy are pursued by ambitious clerical zerooids who want to "save religion," for on this depends their power and prominent position in the religious spheres of the zerooidal world. When a scientist becomes "insane from overwork," it is pretty certain that those scoundrels have deprived him of his sleep by repeated nervous jerks at the moment when falling asleep. This, like many other such doings of zerooids is then called "nervousness." Zerooids can waken a protoid often by continued strikes on the head, which will first cause a dream of ramming a pole, kicking a dog, splitting wood, etc., until we strike so hard that something exciting will happen, and we then find ourselves awake. Then again, they draw on the head upward, which will cause a dream of climbing up a tree, or a house or mountain, then looking down, and (the zerooid, who feels and watches the progress of the dream; now giving a push), loosing the hold, falling and becoming awake from the excitement. With the particulars of the dream the zerooids have but little to do, but they form the general character of them, like any other outer influence during the sleep. Our friends in the other life can give us but little protection against such moral criminals, for they are too dead, and lack the required continuous activity of guardianship. We must help ourselves.

24. "Materialization" and "dematerialization" are the dualistic terms for the opposite directions of galomalization of zerooids, these branches of galomalization being termed "materialization" and "pateralization" in galomalistic philosophy. In general, galomalization is the process of changing the galomature or the proportion between the galomic factors of a body; so that both heating and cooling are forms of galomalization, the first being pateralization, and the second materialization. In regard to the zerooidal manifestations, materialization is identical with that operation of the zerooids which is termed "materialization" by the spiritualistic spiritists, who gave it this dual-extremistic name because they believe that "the spirit is imma-

terial in its normal condition, and at the seance takes on the atomic matter from earthlife." Galomalism is, of course, opposed to this idea, for reasons which are sufficiently explained. The difference between said terms is only in the *i*, but it is sufficient to indicate a great difference in the philosophical perception of the operation which they are intended to signify. Materialization of zeroids as witnessed by thousands of people in the seance-rooms, is not principally a chemical process, otherwise the mass gathered from the medium and other sitters could not be used again and again by a large number of materializing zeroids. In their normal condition, the zeroids are very porous, for their mass has once been interpenetrating with the heavier mass of a sensible body. In a materializing seance they draw half-ripe zeron, which we shall term "medialum," from the bodies of the media, and, after a sufficient amount is gathered, draw it by their gradually increasing magnetic attraction, which is conducted by their will, into the pores of their body, at the same time condensing the materity of it, since it is this which is attracted by the comparatively paternal zeroids. In the same way, the zeroids can fill the pores of their clothes with medialum, and condense the materity of it sufficiently for sensibility.

Materialization is consequently the combined process by which the zeroids draw into their bodies and cool the prepared medialum. The condensation of the materity of the medialum, and consequently the cooling of it, is the cause of materialized zeroids generally being cold, and feeling "like taking a cold bath." Materialization has many different degrees: generally it is so weak that the zeroid can be seen only by so-called "clairvoyants." These sensitives often claim a good deal for themselves, but, like other people, they do not see anything when they have their eyes shut: the images they then think to see are inverberated. Neither can they see all the zeroids present but only those who are slightly materialized. At a regular materialization-seance, where there is plenty of medialum taken mainly from the body of the entranced medium, and floating like an invisible cloud over the floor of the cabinet, the materialization often becomes so strong that the zeroid appears almost to have returned to protoidic life. Many reports of such seances have been published, so that the outward appearance of the phenomenon is well known.

Light is hurtful to materialization of zeroids, because it

forces heat or paterity ("spirit") on them and tends to pateralize ("spiritualize") them: for this reason a dark cabinet is required, and but low or no light in the seance-room. At midnight the natural conditions for materialization are most favorable, and the old saying of "the ghost-hour" is well founded on experience. Sound advances materialization, for, like wind, it has a cooling effect on the medialum; besides this, music helps to harmonize and quiet the sitters to a condition favorable for taking medialum from them.

While a zeroid is thus materialized it consumes a part of the medialum for its much potentiated actions; and in so far, chemical actions take place. To the same degree as the zeroid becomes harder or more material is he deviating from the zero, and increasing his transant magnetic forces and his strength and productiveness, which applies to his brains as well as to his muscles. The life-process of equalization once more sets in with tolerable force, and gives sometimes a considerable mental productiveness to the materialized zeroids. According to the observations of the before-named band of philosophers, the mental strength of a zeroid, when sensibly materialized, is from eight to ten times as large as before or after the materialization. This explains why the cabinet-operators of media can converse much on things that happen during the seances, while they have the force of observation and analysis, but remember but little of what happened in the meantime. For the same reason they but seldom succeed in telling us the names of zeroids who are present and not materialized, because, while materialized, they can see them no more than we; and when not materialized, they cannot easily keep the names in mind. All these peculiar circumstances, which dualistic spiritualism failed to explain, make it difficult to convince people of the truth of the manifestations. White clothes are easiest materialized, and hair hardest: therefore do the zeroids often cover the head and part of the beard with white garments. Female zeroids generally come in white, partly because it is fashionable, and partly because it protects them best against the pateralizing influence of light.

25. Pateralization is opposite to materialization; but the term "dematerialization" well signifies the act of a zeroid in emptying his body of medialum and returning to his normal

state; the medialum, though, receives temperal heat from the atmosphere, and in that way pateralizes to its usual invisible condition. Pateralization signifies the process of increasing the paterity of a body. It has been observed that zeroids in a seance can work bodies, which, by their chemical condition, belong to our sphere of nature, into a condition similar to their own and entirely insensible to us. "The spirits dematerialize these things," says the modern spiritualist. Now it is evident that flags, hats, coins, letters, flowers, etc., are not freed of their "matter" and made purely "spiritual" or "mental," (which we need not argue) but that merely a change of condition took place with them. As it were, the zeroids work heat into them, and in that way change their latentature to a zeronic one, similar to their own, without, however, making them the proper zeron, because their chemicature remains unchanged. That it is a heating process is already apparent from the fact, that, if these bodies consist of a combustible substance, they often commence to burn. Without the aid of a medium, the zeroids have not the strength to pateralize such bodies. After a flower is pateralized to zeronic latentature, the zeroid can carry it about and pass it through porous bodies as they do their own substances; but they cannot without considerable trouble keep it in that condition for a long time, but materialize it again very soon. In the same way do they pateralize of the clothes of the medium, take them off, materialize them again, and throw them out of the cabinet, even if the medium be thoroughly tied to the chair; they also loosen the ties, play their good and bad tricks, and fasten them again as they were before. A combination of pateralization and materialization is the cause of a vast amount of trickery by zeroids, which seems to be so startling, and yet is so simple in its nature. The experiments of Zoellner with Slade, as published, were cases of pateralization. The twisting of endless strings is quite easy to zeroids after they have one part of the string worked into a condition which permits the passage of it through the pores of another part. From a materialistic standpoint this is utterly unexplainable, and therefore gained little evidence among the scientists.

Independent slate-writing is principally effected by pateralization of the zeroid's own hand beyond the zero, which becomes attractive and able to take a magnetic hold of the pencil and move it between the slates, just as a steel-magnet under a table

will move a pin upon it; but we are not fully prepared to explain this interesting phenomenon exhaustively.

Women are the best materIALIZING and men the best paternalizing media. In future, technical means will be discovered by which to assist both branches of zeroidal mediumship considerably. One point of importance is, that materIALIZED zeroids should stand on a copper-plate, with a wire connected with the earth in the manner of telegraph-wires; the paterity forced on the zeroid by the necessary light, which makes it so difficult to remain longer than a minute or two, would then be taken off in the form of "negative electricity." There are animals which are more mediumistic than men, and which under proper conditions, may be made useful in this respect. Without the aid of media, zeroids are entirely unable to affect things in our sphere in such a manner as to be noticeable by us, they cannot even bring a delicate cardhouse to fall, nor can they in anyway make themselves known to us, except to a small extent by nervous jerks, which though are not understood. Protoids are often requested by zeroids to develop their mediumship, but nobody should do it who is inclined to melancholy, for it hurts the nervous systems of such persons. Good media have a sanguine temperament and strong egoism, which enables them to soon recreate their forces. Every protoid can of course become a medium, but some develop much easier and stronger than others. The development of a medium consists in an adjustment of his nature for the production of medialum. If a person bleeds moderately once a day, the loss of blood will be restored by nature plentifully, so that after the restoration the cupped person will have more blood than before the bleeding took place. If this process is continued for some time, this person will become so productive of blood that he cannot do without cupping, and the quantities of the extracted blood will continually increase. It is the same with any other substance which the body will give out only if caused to do so: nature is always inclined to restore the consumed or extracted forces amply and with a surplus. A person sitting every day half an hour for development as a medium is "cupped" by the zeroids of his medialum, and, just as in the known case of bleeding, nature is caused to produce more medialum than is needed to restore that which was lost. In this way, after a year or so, the quantity is large enough to serve the zeroids for visible manifestations. It is self-evident, that, while a medium's strength is used in this way, he or she is unfit for

much labor in other directions. Mediums should be well-protected and well cared for.

26. Exposures of media as frauds have repeatedly been reported in the daily press, with the addition of the modern sensational pomp. Several good and reliable media were caught outside of the cabinet, apparently imitating a materialized zeroïd. Many spiritists are now acquainted with the causes of these strange facts. The worst enemies of the zeroïdal manifestations are not in this but in the other sphere of life. It is mainly the ambitious, selfish, and haughty representatives of the religions, who see, and rightly, a danger to religion and their personal power and prominence in this movement. The teachings of the churches do not agree with the facts as found and reported in the seance-room; most manifesting zeroïds contradict the story of heaven and hell, etc. The jesuits especially spare no means to injure the movement: they watch every medium and every visitor, waiting for a chance to do something which may look like fraud. If now, sceptics go to a materializing seance intending "to expose the fraud" by grasping the "spirits" and holding on to them, these jesuits are soon informed of it: if they do not hear it, they can feel it from inverterbation. They feel also when the sceptic makes up his mind to grasp the next zeroïd: in that moment they will capture the cabinet, take possession of the entranced medium, change his dress, and manage him inverterbatively in such a manner that the medium will walk out as if he were a zeroïd, and will then be caught and "exposed." Of course, nobody can argue against such "exposures" with people who have not investigated the matter closely, and who are theoretically opposed to the whole proceedings; they being generally materialists. It is remarkable that in this way the otherwise so antagonistic extremists of materialism and religious spiritualism work together to injure a cause which, as far as the phenomenon is concerned, has the truth on its side. The materialists, though, are as a rule honest in their belief and there are no signs whatever that they take part in such foul doings after they have passed over to the other life: they are then rather perplexed and keep quiet. But the selfish and reactionary jesuits and similar clericals in the other life are determined to suppress this movement, and no means are too low for them for this object. They show themselves entirely devoid of any feelings of honor and

truth. As mentioned before, they try to murder the media by invertebrating them with suicide mania, or by depriving them of their sleep; another way is to impress them with injurious vices or with doing things which will lead them into financial and other troubles, or by making them appear insane, etc. "I fear the jesuit-spirits as I do black snakes," said a medium, and this was not exaggerating the true condition of things. Another trick of these fellows, as we have witnessed twice is this: at the materializing seance of a male medium with a mustache, a jesuit dressed as a female zeroïd in white, materialized, called up a sceptic, and claimed to be a lady friend of his. The sceptic soon detected the mustache, which his visitor was only too willing to show, the sceptic now swore that it was the medium imitating a female; the trick of the jesuit however was discovered and explained by a spiritist.

It may safely be said that every time a sceptic goes to a seance intending "to expose the fraud," he will find something that in his judgment is fraud. When such people "grasp the spirits," in nine cases out of ten they will get hold of the poor medium, who then awakes from his trance, and finds himself in a disagreeable position. It seems, therefore, advisable that the mediums or their friends should plainly state this fact, before every materializing seance, to the audience, and, in case the mediums are then grasped, only what was told beforehand will have happened, and the charge of fraud falls to the ground. An honest and earnest investigator who is not insanely prejudiced, finds many peaceful ways of getting at the truth without co-operating with the demonic jesuits.

Then again clerical zeroïds will obsess a medium, and compel him to denounce himself and all other media as frauds, and to tell in a clumsy manner how the fraud was committed. These statements of the obsessed medium are then published. Soon thereafter the medium will become conscious of what he has done, and regret it, but the harm is done. For all these reasons an investigator should trust nothing but his own senses and reason, otherwise he will never come to a final conviction. We assert that there have been but very few, if any, exposures of known materializing media as frauds. Of course, almost every medium is said to have been exposed a certain number of times, and even many modern spiritualists take part in these assertions, especially those who are opposed to "the materialization of spirits" from a theoretical basis; but the media who are not

in a position to defend themselves, and whom outward appearances are against, are innocent. Most of them are so related to the zeroids that they do not even dream of doing any fraud; and when still they are "exposed," they quietly suffer the injustice. It is time that noble-minded men and women should organize and give the media such sustenance and protection as is required for successful operation. Mediumship should cease to be on the low level of a business and the media should be engaged by societies for a salary to convince the people of the existence of the zeroids and an individual life hereafter.

27. The formation of galomal mass in individual organic bodies, which was caused by the struggle for galomal equilibrium, had necessarily to be accompanied by the development of a strong egoism of these bodies, who, for the sake of happiness or equilibrium, want to exist and prosper. This egoism is the most important instinct of organic bodies, without which individual existence and the attainment of nature's final object—galomal equilibrium—would be impossible. This instinctive egoism is stronger than all false reasoning of the materialists, who do not succeed in suppressing the secret hopes of a future life. Every general instinct of men has a natural justification. The instinctive hope of eternal life is natural and well founded, for, after the galomal mass, organized to an individual, has overcome the labor and troubles of reaching the zero, it has also strengthened its desire to remain forever in that condition of satisfaction, equilibrium and happiness.

The zeroid has all the faculties to maintain its individuality forever, if it forever finds the conditions for it, mainly in regard to temperature. Eternal life would be sure if the earth and its present temperature existed eternally. The zeroids believe that they shall live forever: this would be true if it depended on them alone, because their personal condition is prepared for it; but outer forces can and will destroy them. The zeroids are destroyable; not the mass they consist of, but their individuality, for this is a matter of form and composition only, which are abstract. If a person's head be cut off and warm blood pumped into head and trunk, both parts of the person will continue to live: this is an experienced fact, used by materialistic authors against spiritualism, which, with its hypothesis of immaterial and immortal "spirits," minds or souls, is not able to deal with it. Galomal-

ism says that the head of such person is cut off entirely; not only the sensible, but also the insensible zeroidic part of it, and a beheaded person does not exist any longer as an individual—has no second life. A person who loses a leg in this life is also without it in the other life, etc. Injuries curable in protoidic life are also curable in zeroidic life, but it takes time and healing there as well as here. Many injuries which cause the death of premature persons can never be adjusted again in zeroidic life, although the pains will cease after some time. There are many cripples in the zeronium, but since they do not need their limbs for labor in the same way as we do, they can be happy without them.

Pains are abnormal magnetic actions in the body; but since the zeroids are nearly at zero, the magnetic actions, and consequently the pains, can never be so strong as in our life. When a zeroid materializes, his pains increase in proportion to the general increase of galomal inequilibrium: hence the idea that pains are a property of "matter" merely, and not to be found in the "spirit-world." Wounded zeroids cannot materialize on account of the increase of pains connected with it. A large number of zeroids suffer from the effects of war, capital punishment, poisoning and other forms of legal and illegal murder. It is possible to imprison an animal zeroid between glass-plates: a burning sheet of paper is then sufficient to destroy this zeroid,—that is, to annihilate its individual bodily organization—and nothing is left but the mass that substantiated the zeroid before. Successful experiments to destroy zeroids have been made by the author to which the band of philosophers previously alluded to have already and will again testify. Any composition in nature can be injured and destroyed, and the zeroids make no exception. Immortality in the sense of spiritualism would require the indestructibility of the zeroids, and is therefore a mistake. The zeroids of the earth or any other planet will be destroyed by a great change of the temperature on the planets from the zeronic. In "The Law of Nature" it is proved that the earth's orbit has a spiralic involution; the heat on earth is therefore constantly increasing as indicated by the motion of human mental productiveness from the equator northward, since its culmination is always in the temperate zone. After many thousands of years the heat on earth will become such that protoidic life will cease at the poles. The temperature in the umbra will, after another long period, also become too hot for the zeroids to maintain their existence. Abnormal heat makes

sleepy, and gradually the zeroids will lose their egoism and individuality. The earth will melt and boil, enter its last glow-period, and then join the sun again. The possibility of eternal individual existence includes the possibility of an equilibrium of the galomium, and ending of nature; but this as shown before, is out of the question, since the infinite has no entirety, is not a universe, and can therefore never be entirely or finally equilibrated. Since nature is eternal, man is not.

Individual life is therefore limited in time and space; but still the life before us is long enough to be looked at as "a small eternity," if this expression be permitted to signify a length of time beyond our perception. Human society of the protoids mainly, and also of the zeroids can do a great deal to lengthen the life-period on earth by doing everything in its power to advance the process of organic life: for the larger the zeronic tail, the stronger the repulsion or weaker the attraction between earth and sun; consequently the smaller the spiralic involution of the earth's orbit, and the longer the period of temperate temperature on earth and the period of organic life.

The morality of galomalism is the morality of common sense: everything that will generally advance the organic life-process on earth (especially in regard to the most suitable forms of it, the human beings) is moral, good, etc.; and everything working in the opposite direction is immoral, bad, etc. This is the basis of galomalistic ethics, which is termed "equilibrarianism," and has the motto "*equilibrium is happiness*." In equilibrarianism, egoism and socialism as the opposite affective tendencies and individualism and communism as the opposite economical tendencies, are contravariant. Both egoism and socialism, or their expressions, individualism and communism, are put on an equal basis as being equally important and good as opposite tendencies of which none by itself is real; the first two being related to repulsion and attraction and the second to cold and heat. Society belongs to nature. The object of equilibrarianism as a policy is to equilibrate individualism and communism. To-day men are too egoistic and their affairs too individualistic; society is too cold, it must be warmed by introducing more communism and making people more socialistic, until that equilibrated social temperature is attained in which the human race can prosper best; that is a state of social affairs in which individualism and communism are equally strong.

28. Zeroids can live in the same limits of temperature as protoids, and are influenced by the weather and unfavorable conditions of the atmosphere quite as much as we, and sometimes even more. Our homes are most of the time the homes also of our zeroidic friends. Mature zeroids find difficulty in staying long hours with us, but premature zeroids are able to stay almost day and night, they being heavier and stronger. They can see and hear everything that happens in our world but they cannot take an active part in it. If a protoid is conscious of the presence of a zeroid, he is able to attract the same with his will-force, which is a real magnetic energy. The zeroid is then drawn to the attractor with the whole body, and cannot get away. By now merely willing that this zeroid must go to the left or right, etc., he will move accordingly, and in this way zeroids can be imprisoned in a plastered closet with the door partly covered with glass plates, as has been done repeatedly. If the zeroids meet resisting substances of insufficient porosity, they require as big a hole to go through as we would, or as is required for the full size of their body. The strength of a protoid is so far superior to that of a zeroid, that all the latter's friends together cannot save him from his fate, which may be destruction. The manifestations of zeroids show but little systematization and no programme. Unseen by the sitters of a seance, often a very disorderly struggle for the cabinet and the medialum takes place. Whoever forces himself to the front will appear, and others who are inexperienced or backward will not get a chance to come, although they may be much wanted. Most visitors will have observed the unreasonable waste of strength and time by the so-called "guides" of media, who make such importance of their own person, while they pay but little attention to the real needs and wishes of the visitors, who come to see their own friends. Media should control their "guides" or send them to the tail if they are not reasonable. It is very annoying that on account of the anarchial conditions in the cabinets, new investigators generally do not see any of their own friends in the first two or three seances which they witness.

Zeroids do not organize and systematize to the same extent as the protoids do: they live rather in a very extensive personal liberty. The highest object of the State, as representative of an organized society, is the regulation of the production and consumption of food; but as the zeroids do not quarrel much

over this question, since they have plenty of food without much labor, or with very little, they need but little, if any, social organization, and their personal liberty is restrained only by customs, ambitions, affections, etc.

What are the zeroids doing? When in their own homes in the zeronic layer of the atmosphere, they are not doing much of anything, for there is the realm of rest or death, especially in the upper spheres. Where there are no actions there is no time, and no need of "passing the time" in some occupations; perfect death or equilibrium is "the end of time," but the zeroids are hardly ever perfectly dead, and, according to their measurement of action, they are always "very busy"; this measurement is, of course, relative. When the zeroids are down with us, they observe us, and generally believe they guide us. This may often cause them enough labor and trouble, but it would practically amount to the same if they would save their troubles; besides that, our world moves on slow enough without being guided by people with old-fashioned ideas. Premature zeroids are often busy with their own affairs, especially the children, who study in our schools and take their meals at our tables. But the activity of the young zeroids is also not to be favorably compared with ours—we produce much more than they do. After a person has once lost the heavy part of his body, there is not much left of him. Nature has not given us this heavy body to no purpose, or even as a burden, as some people seem to think, but it was simply a matter of necessity that we should have it until we are ripe, and, therefore, is it our most important property, without which we can do but very little. Those who lose it too early lose a great deal: they have ambitions, but cannot carry them out. Most of them would rather be here, especially those who became old enough in this life to know the charm of productive action. Nature wants us to pass through this life carefully, develop our individuality in all its branches to the highest possibilities, and then pass over naturally and without being injured by sickness or accidents. Those who do that are the happiest, and are in the proper state of mind to appreciate the happiness of zeroidic life; but premature persons cannot pass over without being injured, and, even after they are healed, they cannot have that life of interesting experiences that we have: therefore stay here, and make good use of this life until you are naturally ripe to pass over.

A change of ideas or knowledge requires a change of brain

substance. With mature zeroids the change of substance is but slow. Our estimation of past time is proportional to the conscious changes in our brains during this time. To mature zeroids a century passes about as quick as a year to a young protoid. Old zeroids are behind the time with their ideas, except some few of philosophic minds, who have come down to the protorium continually to watch the progress of our world. The religious masses of former centuries live on in ignorance, and will seemingly never be informed of the real cause of their being. Whatever progress there is made in the zeronium is caused by the protorium. The average adult protoid is a much higher cultured being than the average zeroid ; and this will be so, as long as the temperature on earth permits progress, which is made from generation to generation, while the individual arrives at a standstill, whence it is not pulling any more, but pushed forward, which is really the case with the entire zeroidic world. It is a happy adjustment in nature, that the old generations are dead, and have no control over the affairs in our world any more, otherwise progress would be a difficult matter.

There is some culture in the other world, especially in regard to homes and dresses ; but it has no feature of artistic importance which could not be traced back to past or present styles in the protorium. But the zeroids have no libraries and no history. Events which are not recorded in the protorium are lost forever as far as history is concerned, because the brains of the zeroids stand still and cannot remember them with safety ; but a well-calculated question often helps them, and we may, under favorable conditions, be able to obtain some hints from manifesting zeroids which will lead to fruitful historical investigations. We feel that we have now laid enough stress on the unproductiveness of the zeroids to warn those readers, who should be caused by this treatise to go to media, of the dangers of "spirit-advice," that they may be prevented from going through "the dark sides of spiritualism" as so many heretofore had to do.

29. A word may yet be said about "the seven spheres" in the other world. We had before occasion to state that young zeroids have a greater specific weight than the mature ones, and on this account live in lower spheres or layers of the zeronium, according to their ages. Manifesting zeroids generally speak of

these spheres as something like a classification in regard to wisdom, goodness, etc. Catholic zeronoids perceive the lower spheres as the purgatory through which the souls have to advance until they arrive in heaven. Spiritualistic spiritists teach that the rise through the seven spheres depends on a growth of "spirituality," which would be correct if they can agree with us to substitute "specific heat" for "spirituality." Organic life starts in the material realms of nature, and gradually advances to zeronity: this rule is not done away with in the other world, as in general we find there the same relations as here, because nature is consistent. No person coming from our world can rise directly to the highest sphere in the other world, no matter how good and wise he may be; but an ignorant or bad person will surely be in "heaven" after he is about a hundred and twenty years old. The mental conditions of the people have nothing to do with it, but it is simply a question of age,—a "physical" question, as everything else. The division of the zeronium into seven spheres is arbitrary: it may be divided into any number of spheres, because nature draws no lines between them. This explanation of the spheres was highly interesting to our zeronoid friends of modern times, who now understand why they are comparatively low in the other world, though they belonged to the highest in this life in regard to education and labor for progress.

To those who have not fully apprehended the idea of galomal equilibrium and zeronity, it will seem remarkable that the zeronoids do not give us specific reports of the conditions, circumstances, and arrangements in their homes. That little which is told about it in this treatise is the result of careful deduction, combined with a long series of experiments with some of the ablest men in the other world, to whom these results were as new as to ourselves. But their condition of zeronity explains it. Brains which stand still, or nearly so, because they consist of equilibrated mass, cannot do labor involving research and analysis, no matter how highly they may have been developed in their years of prematurity. Whatever they think may be perfectly logical and true, but the thinking process has become very weak and slow. There is nothing deplorable about this condition of the zeronoids, for it is perfectly natural, and required for happiness, and it would be pitiful if it were different. In the zeronic layer of the atmosphere the zeronoids hardly sense each other as bodies. Now the most lively part of them are

their brains: a thought of one zeroid, no matter how slowly produced, is directly invertebrated to his neighbors. The zeroids are the best of mind-readers. Because now, they do not sense each other except by mental invertebration, they have come to the belief that they are but minds, or, as they call it, "spirits"—disembodied spirits.

The limits which, for pecuniary reasons, we had to draw to this publication are already overstepped, we therefore close. The great importance of the subject seems to exclude indifference to our theories: we therefore shall be glad to argue them with every one who enters with us the area of true experience and science.



THE SEYBERT COMMISSION

ON "SPIRITUALISM."

The first report of the "Seybert Commission" is at hand. This commission was to investigate "all systems of Morals, Religion or Philosophy which assume to represent the Truth, and particularly of Modern Spiritualism"—but so far they have only looked for some pretence in the behavior of a few mediums, to call the phenomena of spiritism frauds. Of course, they must be frauds, otherwise: where would the professors be?—and where would their friends, the *Reverends*, be?

These naive professors do not know two important facts, which made their investigation a failure: first, that they (like all such investigators) are surrounded, and closely watched by a large number of jesuitic and other clerical "spirits," who try their best to make the investigation a farce and "save religion;" and second, that most, if not all the so-called jugglers and conjurers are mediums, and unable to explain their best "tricks" in an ordinary way. But it pays far better to be a juggler than to be an honest slandered medium. The Seybert Commission made use of the fraudulent medium, Kellar, against spiritism. There was a time when Kellar was an honest medium—for some years past he is a moneymaking fraud, calling certain tricks his own which are the workings of his jesuitic helpers in the other life-sphere. A Mr. Sellers, a supersmart member of the Commission, said, he knew the solution of Kellar's (mediumistic) slate-writing, etc., without taking mediumistic power into account, but he does not state that solution, expecting the commission of "scientific investigators" to take his word for it, and they did it! *Yet, he cannot tell!*

To explain "spirit-rapping" as bone rattling of the medium, because some physiologists have made the unproved assertion, that some persons can do such things, is unworthy a "scientific commission."

The commission complains, that the mediums were professionals; oh yes!—but for a scientific investigation of spiritism, it is not so damaging that the mediums are professionals as that the scientists are. Salaried professors, etc., with few exceptions, are conservative and prejudiced in favor of old theories, and they are, therefore, the persons most unfit for a commission on investigating phenomena which must necessarily cause a revolution in philosophy.

WM. DANMAR, Architect.