What Is Matter and What Is Force?

(A Reply)
[to "Is Electricity Matter or Force?" by a Theosophist]

by Another Theosophist [i.e., K.H. according to *Letters of H. P. Blavatsky to A. P. Sinnett*, p. 8; by the style, possibly written down by T. Subba Row]

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excerpts

But we must pass to the more important question, now, and see, how far science is justified in regarding electricity as a force, and Colonel Olcott—with all the other Eastern Occultists—in maintaining that it is "still *matter*." [p. 212]

Thus, before the too dogmatic admirers of modern science take the Occultists to task for viewing electricity under one of its aspects—and for maintaining that its basic principle is—MATTER, they ought at first to demonstrate that science errs when she herself, through the mouthpiece of her recognized high priests, confesses her ignorance as to what is properly Force and what is Matter. [p. 213]

Science knows that matter generates what it calls force, the latter manifesting itself under various forms of energy—such as heat, light, electricity, magnetism, gravitation, etc.—yet that same science has hitherto been unable, as we find from her own admissions as given above, to determine with any certainty where matter ends and force (or spirit, as some call it) begins. [pp. 215-216]

Neither an atom of silicon, nor an atom of oxygen, is capable of any further subdivision into something else—they say. But the only good reason we can find for such a strange belief is, because they have tried the experiment and—failed. But how can they tell that a new discovery, some new invention of still finer and more perfect apparatuses and instruments may not show their error some day? How do they know that those very bodies now called "elementary atoms" are not in their turn compound bodies or molecules, which, when analysed with still greater minuteness, may show containing in themselves the *real*, primordial, elementary globules, the *gross* encasement of the still finer atom-spark—the spark of LIFE, the source of Electricity—MATTER still! [p. 216]

The latest conclusions at which modern chemistry has arrived, it seems, have brought it to reject the word imponderable, and to make away with those textbooks of pre-modern science, which refer the phenomena of heat and electricity to attenuated forms of matter. Nothing, they hold, can be added to, or subtracted from bodies without altering their weight. . . . Have they been able to replace by a more scientific theory the old and tabooed "phlogiston theory" of the science of Stahl, Priestley, Scheele, and others?—or, because they have proved, to their own satisfaction, that it is highly unscientific to refer the phenomena of heat and electricity to attenuated forms of matter have they succeeded at the same time in proving what are really, Force, Matter, Energy, Fire, Electricity—LIFE? The *Phlogiston* of Stahl a theory of combustion taught by Aristotle and the Greek philosophers—as elaborated by Scheele, the poor Swedish apothecary, a secret student of Occultism, who, as Professor Cooke says of him, "added more knowledge to the stock of chemical science in a single year than did Lavoisier in his lifetime," was not a mere fanciful speculation, though Lavoisier was permitted to taboo and upset it. . . . Lavoisier, as it is well known, did not add any new fact of prime importance by upsetting the phlogiston theory, but only added "a grand generalization." But the Occultists prefer to hold to the fundamental theories of ancient sciences. No more than the authors of the *old* theory, do

they attach to phlogiston—which has its specific name as one of the attributes of *Akasa*—the idea of weight which the uninitiated generally associate with all matter. And though to us it is a *principle*, a well-defined essence, whereas to Stahl and others it was an *undefined* essence—yet, no more than we, did they view it as *matter* in the sense it has for the present men of science. As one of their modern professors puts it: "Translate the *phlogiston* by *energy*, and in Stahl's work on Chemistry and Physics, of 1731, put *energy* where he wrote *phlogiston*, and you have . . . our great modern doctrine of conservation of energy." Verily so; it is the "great modern doctrine," only—*plus* something else, let me add. Hardly a year after these words had been pronounced, the discovery by Professor Crookes of *radiant matter*—of which, further on—has nigh upset again all their previous theories. [pp. 217-218]

The explanation of Thomas Young of the undulatory theory of light holds now as good as ever, and shows that what we call light is simply an impression produced upon the retina of the eye by the wave-like motion of the particles of matter. Light, then, like heat—of which it is the crown—is simply the ghost, the shadow of matter in motion, the boundless, eternal, infinite SPACE, MOTION and DURATION, the trinitarian essence of that which the Deists call God, and we—the One Element; Spirit-matter, or Matter-spirit, whose septenary properties we circumscribe under its triple abstract form in the equilateral triangle. If the mediaeval Theosophists and the modern Occultists, call the Spiritual Soul—the vahan [vehicle] of the seventh, the pure, immaterial spark—"a fire taken from the eternal ocean of light," they also call it in the esoteric language "a pulsation of the Eternal Motion"; and the latter cannot certainly exist outside of matter. [p. 220]

The Theosophists, old and modern, the Alchemists and Rosicrucians have ever maintained that there were no such things *per se* as "light," "heat," "sound," "electricity"; least of all—could there be a vacuum in nature. [p. 221]

Now the sun and ether being beyond dispute *material* bodies, necessarily every one of their effects—light, heat, sound, electricity, etc.—must be, agreeably to the definition of Aristotle (as accepted, though slightly misconceived, by Professor Balfour Stewart) also "a kind of body," *ergo*—MATTER. [pp. 221-222]

But what is in reality Matter? We have seen that it is hardly possible to call electricity a force, and yet we are forbidden to call it matter under the penalty of being called unscientific! Electricity has no weight—"a Theosophist" teaches us—*ergo* it cannot be *matter*. Well, there is much to be said on both sides. Mallet's experiment, which corroborated that of Pirani (1878), showed that electricity is under the influence of gravitation, and must have, therefore, some weight. [p. 222]

This, however, raises a side issue as to what is "the law of gravitation." The scientists of the present day assume that "gravitation" and "attraction" are quite distinct from one another. But the day may not be far distant when the theory of the Occultists that the "law of gravitation" is nothing more or less than the "law of attraction and repulsion," will be proved scientifically correct. [p. 222]

But whether electricity has weight or not, no true scientist is prepared to show that there is no matter so light as to be beyond weighing with our present instruments. And this brings us directly to the latest discovery, one of the grandest in science, I mean Mr. Crookes' "radiant matter" or—as it is now called THE FOURTH STATE OF MATTER. That the three states of matter—the solid, the liquid and the gaseous—are but so many stages in an unbroken chain of physical continuity, and that the three correlate, or are transformed one into the other by insensible gradations, needs no further demonstration, we believe. But what is of a far greater importance for us, Occultists, is the admission made by several great men of science in various articles upon the discovery of that fourth state of matter. Says one of them in the *Scientific American*: "There is nothing any more improbable

in the supposition that these three states of matter do not exhaust the possibilities of material condition, than in supposing the possibilities of sound to extend to aerial undulations to which our organs of hearing are insensible, or the possibilities of vision to ethereal undulations too rapid or too slow to affect our eyes as light." And, as Professor Crookes has now succeeded in refining gases to a condition so ethereal as to reach a state of matter "fairly describable as ultra-gaseous, and exhibiting an entirely novel set of properties," why should the Occultists be taken to task for affirming that there are beyond that "ultra gaseous" state still other states of matter; states, so ultra refined, even in their grosser manifestations—such as electricity under all its known forms—as to have fairly deluded the scientific senses, and let the happy possessors thereof call electricity—a Force! . . . In other words, they say, "the free flying molecules, if left to obey the laws of kinetic force without mutual interference, will cease to exhibit the properties characteristic of the gaseous state, and take on an entirely new set of properties." This is RADIANT MATTER. And still beyond, lies the source of electricity—still MATTER. [pp. 223-224]

Now it would be too presumptuous on our part to remind the reader, that if a *fourth* state of matter was discovered by Professor Crookes, and a *fourth* dimension of space by Professor Zöllner, both individuals standing at the very fountainhead of science, there is nothing impossible that in time there will be discovered a fifth, sixth, and even *seventh* condition of matter, as well as seven senses in man, and that all nature will finally be found septenary, for who can assign limits to the possibilities of the latter! [p. 224]

And now I will close the too lengthy article with the following reflection. The ancients never *invented* their myths. One, acquainted with the science of occult symbology, can always detect a scientific *fact* under the mask of grotesque fancy. Thus one, who would go to the trouble of studying the fable of *Electra*—one of the seven Atlantides—in the light of occult

science, would soon discover the real nature of Electricity, and learn that it signifies little whether we call it Force or Matter, since it is both, and so far, in the sense given it by modern science, both terms may be regarded as misnomers. [p. 224]

Chemistry, which shows to us every atom, whether organic or inorganic in nature susceptible to polarization, whether in its atomic mass or as a unit, and inert matter allied with gravity, light with heat, etc.—hence as containing latent electricity still persists in making a difference between organic and inorganic matter, though both are due to the same mysterious energy, ever at work by her own occult processes in nature's laboratory, in the mineral no less than in the vegetable kingdom. Therefore do the Occultists maintain that the philosophical conception of spirit, like the conception of matter, must rest on one and the same basis of phenomena, adding that Force and Matter, Spirit and Matter, or Deity and Nature, though they may be viewed as opposite poles in their respective manifestations, yet are in essence and in truth but one, and that *life* is present as much in a dead as in a living body, in the organic as in the inorganic matter. This is why, while science is searching still and may go on searching forever to solve the problem "What is life?" the Occultist can afford to refuse taking the trouble, since he claims, with as much good reason as any given to the contrary, that Life, whether in its latent or dynamical form, is everywhere. That it is as infinite and as indestructible as matter itself, since neither can exist without the other, and that electricity is the very essence and origin of—Life itself. "Purush" is non-existent without "Prakriti"; nor, can Prakriti, or plastic matter have being or exist without Purush, or spirit, vital energy, LIFE. Purush and Prakriti are in short the two poles of the one eternal element, and are synonymous and convertible terms. . . . Therefore, whether it is called Force or Matter, it will ever remain the Omnipresent Proteus of the Universe, the one element-LIFE—Spirit or Force at its *negative*, Matter at its *positive* pole; the former the MATERIO-SPIRITUAL, the latter, the MATERIO-PHYSICAL Universe—Nature, Svabhavat or INDESTRUCTIBLE MATTER. [pp. 225-226]

[Note: The discovery by Sir William Crookes of radiant matter, a fourth state of matter, did not stand, but like the theory of phlogiston, was later abandoned by science. It was abandoned after Sir J. J. Thomson discovered the electron in 1897, and showed that the rays of Crookes' radiant matter consisted of negative electrons, that is, of subatomic particles rather than ordinary molecular particles. This, of course, does not affect the thesis put forward in this article, that a fourth, a fifth, a sixth, and a seventh state of matter exist.]