amount of his unpublished work, to which he replied, glancing significantly at the large volumes of Meynert: "Ein Steinchen der Wahrheit hat mehr Werth als ein grosser Schwindelbau." The figure does not in any sense apply to the "Principles of Biology," but the truism covers the fact that all permanent advances in the solution of the marvelous phenomena of life come from original thinkers in the laboratory and field.

HENRY FAIRFIELD OSBORN.
PRINCETON COLLEGE, Friday, April 4.

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Dawson, Edgar R.

"Asking Too Much,"

The New York Times, vol. 39 (Sunday, 6 April),
page 13, columns 2-3.

ASKING TOO MUCH.

"OUTSIDER" SHOULD ACCEPT AS TRUE
THOSE THINGS ABOUT WHICH
EVERYBODY IS AGREED--SPACE
AND TIME.

To the Editor of the New-York Times:

Did "Outsider" confine himself to an attack on Mr. Spencer's propositions alone his article would be much diminished in length. The frame of mind in which he takes up Mr. Spencer's philosophy is a very curious one, to say the least. It reminds one of the old darky who went into a shop to buy some thread and said: "You h'ain't got no No. 10 cotton." The shopkeeper replied, "How do you know that I haven't any?" "Lor', chile! I ain't say you h'ain't got none; I ax you is you." "Outsider" first attempts to shake Mr. Spencer's position and then ends by asking if it can be shaken. He refers to methods of reasoning current in different sciences as 'if logic were not the science of correct reasoning, no matter to what subject it be applied. Is it necessary for us to change our method of reasoning when we drop mathematics, let us say, and take up chemistry? Is not our reasoning in the one case governed by the same laws of thought as in the other? Did each science form a complete world in itself, such a case might be conceivable. In quoting from Mr. Spencer as "Outsider" does, it is hardly fair to isolate a sentence from a context which qualifies it. Mr. Spencer, in laying down what is more a method of investigation than a principle, does not, as "Outsider" would lead us to imagine, propose to establish truth by a system of balloting with universal suffrage. Mr. Spencer says: "My aim has been to exhibit the more general truth, which we are apt to overlook, that between the most opposite beliefs there is usually something in common--something taken for granted by each; and that this something, if not to be set down as an unquestionable verity, may yet be considered to have the highest degree of probability. A postulate which is not consciously asserted, but unconsciously involved, and which is unconsciously involved not by one man or body of men, but by numerous bodies of men who diverge in countless ways and degrees in the rest of their beliefs, has a warrant far transcending any that can be usually shown. And when the postulate is abstract-is not based on some one concrete experience common to all mankind, but implies an induction from angreat variety of experiences—we may say that it ranks next in certainty

to the postulates of exact science."

Now will "Outsider" state any way in which one is more likely to arrive at truth which can not be reached by exact science than in deducing from all experiences that portion which all men admit, the most learned as well as the most ignorant? It is, of course, just possible that a proposition so arrived at may be wrong, but when it is admitted by all when it corresponds with established facts and with beliefs, is it not fair to claim for it a warrant next in certainty to the postulates of exact science? Whether Mr. Spencer understands his own theory or not, I do not presume to say, but I do say that "Outsider's" understanding of the theory is open to doubt. One who understands it would never suggest applying it as a test to astrology before the rise of modern science. Would not this method, if it had been used then, have given a result unquestioned? For it must be remembered that Mr. Spencer proposes only to apply this to cases that exact science does not reach, and can astrology be properly said to have had an existence since the rise of exact science? Mr. Spencer is not guilty of advancing a plan now which would have abolished ignorance had it been applied at the right time. His desire is to establish as good a working system as the present condition of our knowledge will permit. When "Outsider" says that it is perhaps not a fault that Mr. Spencer does not attempt to explain matters in any evolutionary sense, since blank, indeterminate matter, the mere germ of existence, presents no order, no relationship, no characters at all that call for explanation, does he understand the full meaning of his own words? He is evidently under the impression that it could be explained, did one feel so inclined, thought he admits that it presents no relationship.

Although he does not call on Mr. Spencer to explain Time he does demand an explanation of Space. "Is not," says he, "that a half-way philosophy which in these our days does not explain, or at least hold out some promise of explaining, why Space is continuous, why it has such a wonderful uniformity in all its parts?" It is about as reasonable to ask Mr. Spencer to state why Space is continuous as it would be to ask him to state why water is wet. Simply because we cannot think of Space as discontinuous any more than we can think of water as dry. Is not space one of the sources from which we draw our idea of continuity? Let "Outsider" attempt for a moment to think of discontinuous Space. To be discontinuous it must stop at one place and begin again at another, and between the place where it stops and the place where it begins again there must be no Space. In which case the place where it stops and the place where it begins again must be coincident, or in other words Space is continuous. If it is said that because we cannot conceive Space as otherwise than continuous, it is not necessarily proved continuous, it is replied that whatever produces on consciousness an unshakable impression, is, as far as we are concerned, a reality. As to the wonderful uniformity of Space in all its parts, we are brought back on the same impossibilities of thought in attempting to think of it as otherwise. To think of one part of Space as different from another part, we must assign attributes to it, we must be able to postulate certain things of it. When any one defines Space in terms of anything but itself it will be time to consider the question of its uniformity. Does "Outsider" expect Mr. Spencer to start with nothing and produce and explain everything? Does he admit no necessary truths?

"Outsider" goes on to say: "The study of philosophy seems to exist only by virtue of a presumption that all the regularities of the universe are to be explained on some one principle, and we might expect that, were this principle once grasped, these regularities of space, so intelligible as they are, so universal, so fundamental, would, among the first and easiest of things, get explained with mathematical precision and clearness." Yes, we might expect this, we might expect a great many things; but when we expect that explained which is without relations, well, we are going to be disappointed, that is all. It may be unfortunate that evolution cannot explain the conservation of energy, or persistence of force as Mr. Spencer calls it. And when this, together with Space, Time, and the other inexplicables are explained by "Outsider," or some one else, the El Dorado of philosophy will no doubt have been reached, and Mr. Spencer will probably yield the palm very willingly. But until then are not those who expect these explanations in much the same position as the child crying for a slice of the moon? In asking whether Mr. Spencer's unknowable is not "the good, authentic, practical, working God of religion, or a poor decayed divinity exercising no function in this evolutionary world, but retained on half pay for the sake of auld lang syne," the desire to ridicule seems to be backed up by a plentiful non-acquaintance with Mr. Spencer's writings. If this point is not made clear in "First Principles" it is certainly brought out in the controversy that occurred several years ago between Mr. Spencer and Mr. Frederic Harrison concerning the nature and reality of religion. I should like to see "Outsider's" exposition of the theory that counter-evolution would necessarily ensue from the principle of the conservation of energy could the motions of all the bodies in the world be reversed in direction at the same instant, their velocities remaining the same. Would it not be a necessary element in this plan that thereafter motion should follow the line of greatest resistence? EDGAR R. DAWSON.

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