

significance of love; gradually Jesus the Christ will come to reign in the hearts of men. In this work of educating humanity to understand God and itself, America is the training school for teachers."

A TREATISE ON COSMOLOGY. By *Herbert Nichols*. Vol. I. Introduction. Cambridge, Mass., 1904. 8vo. Pp. 455. [Copies can be purchased from the author, 219 Commonwealth Ave., Newton Centre, Mass. \$3.50.]

The first paragraph of Helmholtz's immortal memoir *Ueber die Erhaltung der Kraft*, declares that the proposition that perpetual motion is impossible and the proposition that all the phenomena of physics can be explained by (indeed he says "are due to") attractions and repulsions between pairs of particles, are "identical," meaning, of course, experimentally identical. But before many years had flown, it began to be clear to the minds of most of those who had examined the question that they were so far from being identical in the phenomena to which they would give rise, that the proposition about work was true, while the proposition about pairs of particles was false. It was certain phenomena of the elasticity of crystals which first brought this conviction to the few who were masters of that difficult subject. Next, those most significant of all chemical phenomena which are called the phenomena of the unsymmetrical carbon atom spread the wave of doubt to a wider circle. But what awakened physicists in general to the doubt was the difficulty of forming any adequate and purely mechanical or even hydrodynamical theory of electricity. The problem with which physical theorists were thus confronted goes by the name of the question of the constitution of matter, though the laws of motion are as much thrown into question as is the nature of ordinary matter. This question has been the chief subject of discussion in theoretical physics for many years. Some of the chief hypotheses which have been propounded for its solution have been the vortex theory, the electron theory, and Hertz's theory of concealed constraints. In the introductory volume of his *Treatise on Cosmology*, Dr. Herbert Nichols, who is already well known as a psychologist of high attainments in physics, and who here shows himself to be remarkably well-read in German philosophy, produces a new theory in competition with the three we have mentioned. The exposition of it occupies about a quarter of the volume. This theory, however, is not confined to matter, but is at once a theory of the constitution of matter and of the constitution of mind, having a thoroughly *monistic* character. It is based upon a philosophy which may fairly be described as a modification of Wundt's system, and thus gives a pretty fair idea of what that system would amount to when worked out into physical science. It is probably from that point of view that it will excite such interest as it may come to excite. This, however, is not the most interesting part of the volume.

Considerably more than another quarter of it is occupied with describing in detail what one may call a list of sensualistic categories. These are Quality, Quantity, Changeableness, Lawfulness, Presentativeness, and Personality. This is the part of the work which has most interested the reviewer (who is decidedly opposed to the author's nominalistic sensationalism, and less decidedly to parallelism,) and which seems to him to show very considerable power, although little of an analytic kind. But for the consideration that the kind of power shown is not that which is most needed, it might be rated much higher. But even from the author's point of view the reviewer would expunge Quantity and add a category in order to have some place in the system for false notions, which are certainly a part of the phenomena of mind. But it is truly astonishing that a man should be so blinded by his theory as to declare that "by no power of imagination can we conceive of any similarity whatever" between any two of his six categories. (This seems to be the meaning, although the precise words quoted are only applied to one pair.)

A little less than a quarter of the volume is occupied with a "Historical Review of Cosmology within Philosophy," meaning, mainly, German philosophy. This shows thorough learning, is agreeably written, and will prove instructive to physicists as well as to others who are not well read in philosophy.

As the doctrine is a modification of Wundt's system, so the method may be said to apply a modification of Wundt's logic. But it is to be feared that it will afford more comfort to Wundt's logical opponents than to his friends, if any application is acknowledged. If we might indulge in a little parody, we should say the form of syllogism seemed to be as follows:

Anaxagoras said *A*,
Wundt says *B*;
Ergo, I will risk saying *C*.

However, this introductory volume only sets forth a hypothesis; and it is to be hoped that the main body of the work will subject this to the severest experimental tests. It is, at any rate, certain that such sincere and single-hearted work must do much to bring the day when philosophy shall have entered upon the course of a true and progressive science; and from that point of view we must acknowledge that, be its errors what they may, it is certain to be a source of benefits to mankind. CUSP.

KOHELET ODER WELTSCHMERZ IN DER BIBEL. Ein Lieblingsbuch Friedrichs des Grossen. Verdeutsch und erklärt von *Paul Haupt*. Leipsic: J. C. Hinrichs'sche Buchhandlung. 1905. Pp. vii, 36.

Prof. Paul Haupt, the editor of the *Polychrome Bible*, of which so far all of the Hebrew texts but six volumes only of the English translation have