

*The Riddle of the Universe To-day.* By Joseph McCabe. Pp. ix+250. (London: Watts and Co., 1934.) 5s. net.

THE author points out quite rightly that, in spite of some popular pronouncements about the idealistic or spiritual character of present-day science, the materialistic interpretation of knowledge continues to flourish as it did in Victorian days. A rapid survey of recent advances in every branch of science helps him to illustrate his contention, and to conclude that "neither physics nor mathematics could ever discover anything that would disturb the materialist. You might as well hope to discover a spiritual world by the use of the spectroscope" (p. 225). This is obvious if we restrict our knowledge artificially to the immediate data of the external world. But this is not the sense in which should be interpreted the assertion that materialism has lost the predominant position it held some years ago. This assertion simply means that the recent advances in the various sciences, coupled with the analysis of their possible interpretations, reveal in the world of inanimate things as well as in the mental and social life of the individual, a purpose, an order, a manifestation of causality which cannot be exclusively and ultimately accounted for in terms of matter. However important, necessary and immediate matter is for the ordering of our knowledge, we are bound to admit its allegiance to a higher principle, that is, to spirit, with all its implications. T. G.

*Raumchemie der festen Stoffe.* Von Wilhelm Biltz. Pp. x+338. (Leipzig: Leopold Voss, 1934.) 22.50 gold marks.

PROF. BILTZ is well known for his long series of researches on the physical chemistry of solids. In this book, which brings together much previously published material and also many determinations which have not otherwise been published, he attempts a systematic survey of the whole field, the primary object being the determination of the absolute volumes of the ions in crystals. The first part of the book consists of a number of detailed tables, in which the rich experimental material is collected in an easily appreciated form, and in the second part a detailed discussion of this quantitative material is presented.

Prof. Biltz has had the assistance of other specialists, and the resulting volume is one which possesses an unusual interest not only for chemists but also for physicists who are concerned with crystals. Full references to the literature are given, and the collection of numerical data in the tables would in itself make the book very useful. When this is accompanied by a systematic and detailed attempt towards the interpretation of the results, the value of the book is considerably enhanced. The relations with valency are particularly emphasised, and in this direction the monograph will appeal to both chemists and physicists. The book is one which can be recommended as both rich in information and also in theoretical discussions which reach into many fields.

*Hydrology and Ground Water: a Practical Text-Book for the use of Civil Engineers, Surveyors, Students, and all those who deal with the Control of Water.* By J. M. Lacey. Pp. viii+159. (London: The Technical Press, Ltd., 1934.) 10s. 6d.

THIS is the re-issue of a textbook which was first published about eight years ago, and is based on a series of articles which originally appeared in the columns of *Engineering*. It is a conveniently sized manual affording a good general survey of the subject in twelve chapters, which deal in turn with sources of water supply, measurement and variations of rainfall, evaporation, soil permeability, ground water and springs, run-off or surface yield, storage, floods and wells.

Within its limits, the book provides quite a serviceable guide to those who have to deal with questions of water supply and control, but, as it professes to cater for the needs of "engineers who are engaged in Water Works, Irrigation, and Drainage schemes", it must be said that there are several respects in which the information supplied on those subjects is somewhat meagre. Apart from floods, for example, land drainage receives no very conspicuous treatment. If one were disposed to be captious, exception might be taken to the opening statement that "the source of all water . . . is rain", ignoring the existence of snow, hail and dew as distinct forms of atmospheric moisture. It is true that snow and hail are mentioned on the succeeding page, but only casually and without explanatory comment. The formation of dew is left undescribed, and there is no mention of dewponds as a possible (though limited) source of supply. The section on wells is perhaps the best, as it is the most extensive, constituting 40 per cent of the volume, with examples of calculation of yield, which assume a knowledge of the calculus on the part of the reader. The author illustrates very largely from Indian practice.

B. C.

*Indian Psychology: Perception.* By Prof. Jadunath Sinha. Pp. xvi+384. (London: Kegan Paul and Co., Ltd., 1934.) 15s. net.

THIS very interesting work outlines and discusses the most important topics of Indian psychology with special reference to doctrines of perception. As there is scarcely any experimental psychology in India, introspection and observation are the basic methods displayed. This fact, coupled with the synthetic and metaphysical characteristics of the Indian mind, points to the dependence of psychological doctrines on the fundamental currents of Indian philosophy. Yet, observations and doctrines on specifically psychological questions are numerous and original enough to justify its special treatment. Prof. Sinha thus discusses the various aspects of Indian psychology in their proper setting. Subtle analyses of mental processes are revealed both in normal and in abnormal psychology. The three chapters on illusions, dreams and abnormal perception are very striking in this respect. Philosophers will welcome Prof. Sinha's book as an important addition to their library.