

In the meantime it is an object still more to be desired, that scientific men should discontinue the practice, first introduced by Huxley, of prosecuting research by the mutual application of 'beak and claws,' as otherwise the only possible effect on the world in general will be the one represented by the following astounding observation made to me by a highly educated man of the world: "Scientists are a disagreeable lot, *not worth controverting*"!

So far as my own observation goes, science has never been at so low an ebb in the estimation of the general public as at present, unless they fancy they see 'money in it.' During the last five years science has been struck four staggering blows. Two have been already mentioned, but perhaps nothing can equal in danger the attack made on British science and the old Universities by the President of Section B at Glasgow, this being coupled with a panegyric on the German methods of teaching and research, together with scathing contempt for the two English Colleges which have ever aimed at the highest attainable standard of education, Trinity and Balliol. Really, one would think Cambridge had done fairly well with such men as Kelvin, Stokes, Rayleigh, Airy, Sedgwick, Bonney, Teall, and Balfour, and scores of others who have made their marks, though not always such deep ones. At the present moment the claims of science are being pressed on the unscientific public in a remarkable book entitled "*Anticipations*," in which the average intelligent Englishman is severely handled.

It is scarcely fair, but I cannot resist quoting Bacon's judgment on *Anticipations* and *Interpretations*. Here it is: "We have accustomed ourselves to call the one method the '*Anticipation of the Mind*,' and the other the '*Interpretation of Nature*.'" He refers to the former method as follows: "And as for those who prefer and more readily receive the former . . . because they are unable from weakness of mind to comprehend and embrace the other (which must necessarily be the case with by far the greater number), let us wish that they may prosper as they desire in their undertaking, and attain what they pursue." Readers will kindly note that this appalling sarcasm is Lord Verulam's, not mine.

REVIEWS.

- I.—A TEXT-BOOK OF GEOLOGY. By ALBERT PERRY BRIGHAM, A.M., Professor of Geology in Colgate University. 8vo; pp. 477, with 294 illustrations. (London: Hirschfeld Brothers, Ltd., 1902. Price 6s. nett.)

THIS is a clearly written introduction to geology, full of information and yet devoid of detail, and as well fitted as any book with which we are acquainted to stir up interest in the science and to provide the general reader with a knowledge of the principles and leading results of geological investigation. The work is divided into three parts dealing with Dynamical, Structural, and Historical Geology. After a brief introduction of but two pages, the author

starts on the geological work of winds. In the course of his remarks he points out the useful lessons that may be learned from the disc of earth lifted by a falling tree, from the ridge and hollow thereby formed, from the erosion that may result from the exposure of the soil to wind and water, or from the obstruction that may arise to drainage. The tearing up to a depth of four or five inches and scattering of soil in one district, or the formation elsewhere of rugged cliffs of calcareous sandstone by wind-drifted beach deposits made up of fragments of shell and coral, afterwards solidified through the cementation of the particles, are again vividly portrayed. Illustrations are also given of the loess in China with its dug-out human habitations. Referring to the subject of weathering, and to the minor agent of electricity, mention is made of an irregular train of fulgurites leading off from a tree which was struck by lightning in Florida. The erosive and transporting powers of rivers are dealt with, and the alluvial deposits are traced from their sources in cliff and talus to estuarine deposits and bars. Glaciers, lakes, oceans, and volcanoes receive lucid treatment, and all the subjects are illustrated by diagrams and excellent pictorial views. The illustrations, indeed, are drawn from all parts of the world.

Structural Geology is dealt with briefly, the definitions being in one or two instances too concise, as when we are told that "Hydraulic limestone is so called because when ground it will 'set' under water." From a consideration of the minute structure we are led on to contemplate the "gross structure" of rocks—stratification, folds, and faults, veins, bedded ore, placer deposits, and other phenomena. In the chapter on Physiographic Structures various types of mountains are explained, as well as valleys, lake basins, the development of a land surface in youth, maturity, and old age, and the evolution of drainage.

In the section on Historical Geology the principal formations are briefly described, with especial reference to America, while the fossils are treated, not with respect to the latest nomenclature, but in a broad, general way: thus, a "Carboniferous Crinoid" or "Jurassic Crustacean" is illustrated, while other organisms are generically or specifically designated. Some of the figured fossils are well-known British forms, but the references to physical conditions and economic deposits are essentially American. General questions of correlation are treated in a philosophic spirit, and if we miss any special reference to palæontological zones, and to some other topics, we can without hesitation heartily commend this book to the favourable attention of our readers.

H. B. W.

II.—A BIBLIOGRAPHY OF STONEHENGE AND AVEBURY. By W. JEROME HARRISON, F.G.S. (*Wilts Archæol. and Nat. Hist. Mag.*, vol. xxxii, December, 1901.)

THIS is a quarto work of 169 pages containing the titles of 947 books, papers, etc., by 732 authors, including 143 who have hidden their identity and appear as "Anon." The authors date from Herodotus, B.C. 450, to Sir Norman Lockyer and Dr. F. C.