SCIENCE

FRIDAY, JANUARY 13, 1899.

CONTENTS:

*OUR SOCIETY.**

SEVERAL travellers of the eighteenth century, among them especially Guettard, Alexander and Schoepf, gave more or less important information respecting the geological structure and mineral resources of our country; but geological work, properly so-called, began only with Maclure's studies in 1806. Born in Scotland, Maclure came to this country in early youth and, embarking in business, acquired a fortune long before reaching middle age. He returned to Europe to spend several years in the study of natural science, but came again to America in 1806 to take up his geological work, which continued until 1808.

The publication of his results, presented to the American Philosophical Society on January 20, 1809, led others to make studies and soon afterwards there appeared numerous papers dealing with geological subjects. Professor Samuel L. Mitchell, a devoted follower of Werner, infused much of his enthusiasm into a group of youthful students in New York and induced Professor Archibald Bruce to establish the *American Journal of Mineralogy*, which, beginning in 1810, reached its fourth and last number in February, 1814. Though small and short-lived, this journal served a useful purpose; it contained good papers by

* Presidential address delivered at the annual meeting of the Geological Society of America, New York, December 28, 1898.

ordinarily be noticed only by an expert, so that we must welcome this new process as a great boon. How different copies agree we have not tested.

We have spoken thus in detail regarding the plates, not only from our hope regarding this new process, but because of their special value from a scientific point of view; a large number of the figures being, Chancellor Holland states, photographic reproductions from the types of the butterflies described. Strange to say, it is only in a very few instances that the author has specified *which these are*, and so he has lost an easy opportunity of adding greatly to their value.

Not all the North American species are described or figured in the work, the author quailing before the numerous and rather insignificant Hesperidæ, of which but little more than one-half are treated, and omitting many others found in our lists, but either of doubtful specific validity or differing from their allies by distinctions too fine for any but the expert. This is in the interest of the popular audience to which the work appeals. It is, in fact, an iconography of all the forms interesting an amateur, and more. The only really desirable addition would have been to give more figures of the under-surface where this is characteristic, but one should not quarrel with the generosity here displayed; none can possibly complain that he does not get his money's worth, at least.

As to the text of the work, the first fifth of the book is given up to introductory matter on structure, collecting, etc., and the remainder (except a few interspersed essays) to a systematic but very general account of the insects figured, with very many text illustrations, principally of neuration. The different groups are described as well as the species—a desirable feature, but one not altogether common in popular works; and the classification used is more modern than in most of such books. The author's use of genera is not equal, and is 'conservative'—that is, there are many magazine genera here and there, but with a tendency to the discrimination of later times. The descriptions of the species are short—often very short; and attention is paid to the early stages, but almost absolutely none at all to life-histories, which should be one of the principal aims in a popular treatise.

The work will surely command a large sale and prove a great stimulus to the study of butterflies. Certainly we have never before had such a generous aid to those wishing to cover the whole field. Why should the publishers stamp the cover 'The Butter-Fly Book?' The author surely is not responsible for this, for the proofs have been well read. The publishers have, otherwise, done their part well; the topography is clear and careful, and there is a good index.

SAMUEL H. SCUDDER.

BOOKS RECEIVED.

Michael Faraday, his Life and Works. SYLVANUS P. THOMPSON. New York, The Macmillan Co. 1898. Pp. x + 308.

The Elements of Physics. EDWARD L. NICHOLS and WILLIAM S FRANKLIN. Vol. I., Mechanics and Heat. New edition, revised with additions. New York, The Macmillan Co. 1898. Pp. xiii + 219. $1.50.

Principles of Plant Culture. E. S. GOFF. Madison, The Author. 1899. Pp. 287.

SCIENTIFIC JOURNALS AND ARTICLES.

THE *Psychological Review* for January opens with Professor Münsterberg's presidential address before the American Psychological Association, the subject being 'Psychology and History.' This address, together with other articles that Professor Münsterberg has recently published in the *Atlantic Monthly* and elsewhere on the subject-matter of psychology and its relations to other sciences and to philosophy, will shortly be issued in book form by Messrs. Houghton, Mifflin & Co. Professor J. R. Angell and Miss H. B. Thompson contribute from the laboratory of the University of Chicago a study of the relations between certain organic processes and consciousness, elaborately illustrated with tracings of pulse and breathing. Mrs. C. Ladd Franklin publishes her paper on Professor Müller's 'Theory of the Light-sense,' read before the recent meeting of the American Association. There are other articles on 'Theories of Play,' by Mr. H. M. Stanley; on 'Eucken's Struggle for a Spiritual Content of Life,' by Professor Francis Kennedy, and on 'The Effects of Ether.'