

exact spelling, the author, and the date and place of publication, with the statement that he considers the 10 names in question as the correct names of the animals involved.

I will agree to compile all the names sent in, to tabulate the votes on the different names (in respect to their importance and frequency), and if possible to verify the references and the nomenclatural status of the names in question. I will further agree to submit a list of say 100 to 300 such names to the International Commission on Nomenclature and to recommend that the commission report upon the list to the international congress.

All communications on this subject should be addressed to me as follows:

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CH. WARDELL STILES

GLACIAL CLAYS OF THE MAINE COAST

FOR a number of years these clays have been greatly neglected by geologists and zoologists. Mr. Frederick G. Clapp, in his recent paper,¹ has summarized and added to the work on this region.

Mr. Clapp gives a list of the Pleistocene fossils found in the clays. To this list should be added the following species of ophiuroids, which I found in August, 1909: two specimens of *Ophiura sarsii* Ltk., and one of *Ophiura nodosa* Ltk. These three specimens were found in close proximity in clay about 110 feet above sea level, by aneroid, and the location was at the Rockland Lime Company's deepest quarry, about two miles west of Crockett Point, in Rockland Harbor. This horizon is in the "Upper Clay" of Mr. Clapp's provisional division of these clays. I am indebted to Dr. Hubert L. Clark, for the determination of the species.

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¹ "Complexity of the Glacial Period in North-eastern New England," *Bulletin of the Geological Society of America*, Vol. 18, pp. 505-556, 1908.

SCIENTIFIC BOOKS

The Natural History of Igneous Rocks. By ALFRED HARKER, M.A., F.R.S., Lecturer in Petrology in the University of Cambridge. New York, The Macmillan Company. 1909. Pp. 383, with 112 diagrams and 2 plates.

This volume by Mr. Harker, which presents the substance of a course of lectures delivered at the University of Cambridge, is not a textbook of petrography but treats in a general way of igneous action and igneous rocks in their relation to the structure of the earth's crust, and of the constitution of igneous magmas considered as complex solutions. In the latter portion of the work an exposition is given of numerous and often rather recondite researches into the physico-chemical relations of natural magmas and artificial slags which have been carried out in recent years by Vogt and others.

With respect to the question of the ultimate source of igneous action the author adopts an attitude which is frankly agnostic.

The nebular hypothesis in Laplace's form, if not discredited, has at least been shown to involve great difficulties to which no answer is yet forthcoming; the meteoric hypothesis, resting from the first on a more precarious basis, is involved practically in the same damaging criticism; and the planetesimal theory has as yet scarcely emerged from the tentative stage.

After considering the relation of igneous action to crustal movements and pointing out that while there has been a rough periodicity in times of activity and repose, there is nothing to support the opinion that there has been a secular waning of igneous action, the geographical distribution of the younger igneous rocks and the question of cycles of igneous activity are discussed. It is shown that the differences in composition of the lavas emitted from neighboring vents, as well as the very unequal heights to which such lavas rise, prove that they can not draw directly from a common source. Each volcanic center must possess its own proper reservoir of lava, but we