

boulder-holding clays. To these succeed accumulations of sand, &c., of more or less local origin, containing in some places, as at Grand Traverse Bay, layers of lignite, with imbedded coniferous stems. That these higher Drift accumulations are of fresh-water formation, is shewn by the presence of shells belonging to *melania* and *physa*, which occur above the lignite deposits. These shells, at Traverse Bay, are found in a bed of coarse sand, mixed with small boulders, and overlaid by twelve feet of fine yellow sand. The formations of still more recent date, comprise peat, shell-marl, and iron ochres. Remains of the *Elephas primigenius*, and those of the Mastodon and Elk, with a caudal vertebra of a whale, have been obtained from these modern accumulations.

In closing our brief notice of this Report, we may add that its pages bear abundant evidence of the very able manner in which Professor Winchell has carried out the work committed to his charge. The publication of the author's final Report may be looked forward to with much interest.

E. J. C.

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*Manual of the Sub-kingdom Coelenterata.* By Joseph Reay Greene, B.A., Professor of Natural History, Queen's College, Cork. London: Longman, Green, Longman and Roberts. 1861.

We receive with pleasure a second part of Professor Greene's Manuals of the Animal Kingdom. The present volume, like the preceding, is full of valuable materials for study, and it gives the view of the subject which seems at present to find most favour with European naturalists. We cannot recognize Coelenterata as a Sub-kingdom, nor admit the classification of its supposed members which is here presented. We believe that when relieved from the Protozoa, and some groups properly belonging to the Articulata, the Sub-kingdom Radiata is truly natural, and distinguished by clear and important characters, and with some transferences of families, we regard the classes Echinodermata, Acalephæ and Polypifera as expressing their proper Sub-division. We must also press the claim of Acalephæ to the Ctenophoræ, which are placed among Actinozoa, (our Polypifera,) by Professor Greene. These matters, however, are at present subjects of controversy, and in indicating the views which our inquiries thus far dispose us to consider as most satisfactory, we do not undervalue the work before us as a source of information, and an excellent