

In this magnificent Memoir, with its princely plates and exquisite illustrations, the State of New York has once more shewn the world how far science and art has reached towards a realization of satisfactory results in describing and illustrating the hard facts of Geology in an orderly and delightful manner.

To the student of palæontology and stratigraphical geology, this handsome contribution to the history of early Devonian times will be most welcome. It fills a long-felt want, and serves to tie together a number of faunas and formations with others in the State of New York, as well as beyond. Science, and geology especially, knows no political boundaries. As Dr. Clarke very aptly puts it, "The New York series of formations spreads away from its typical region to all points of the compass, and in all these directions, however far it extends, light is to be sought for the explanation of past geologic conditions in New York." "Nevertheless, the State . . . does not and never can in itself afford the solution of its own problems." Prof. James Hall, for the sixty-three years that he was in office at Albany had shewn that the New York series extended beyond the limits of New York State. The standard laid down by the fathers of geology in North-Eastern America, Hall, Logan, Dana, Billings, Emmons and many others, were to be kept high and to the fore.

The subject matter dealt by the distinguished successor to James Hall in the Memoir before me was obtained by Dr. Clarke in the Peninsula of Gaspé, in South-Eastern Quebec. After describing the general distribution of the "Early Devonian of New York" and pointing out their extension north and east, then sets to the task of giving the geology of the region covered by the Memoir. The geology of the Forillon, of Percé, (a brief sketch of which had appeared in 1903 in advance sheets from the report of the Palæontologist, 1904, and in Bulletin 107, Geological Papers, Albany, 1907), the Gaspé sandstones, etc., are followed by descriptions of the various faunas. Three distinct faunas are noticed, and their rich harvest of forms, new to science, or recorded afresh, constitute the bulk of the material on which the Memoir is based. They are as follows:—

- I. Fauna of the St. Alban beds. Forty-eight species.
- II. Fauna of the Cape Bon Ami beds. Of this fauna eleven species are recorded.
- III. Fauna of the Grande Grève limestones. One hundred and sixty species.

Observations on the Dalmanites of the early Devonian are introduced in the text which throw light upon race character-