

I. Primordial or Cambrian Period—Continued.

2. Potsdam Epoch (2*b*). Sandstone of Potsdam and other places in Northern and Northeastern New York, Western Vermont, and Canada; sandstone and limestone of Troy, N. Y.; slate and limestone of Northwestern Vermont, including the Georgia shales; limestone and sandstone of shores of the Straits of Belle Isle; Chilhowee sandstone of East Tennessee; sandstone with some limestone in Wisconsin and Minnesota.

§ 7. On paleontologic evidence, Prof. R. P. Whitfield (Bull. Amer. Mus. Nat. Hist., vol. i, p. 140, 1885) correlates all the Cambrian faunas, practically ignoring the stratigraphic evidence then published. He says:

My own impression, at the present time, is that the New York typical Potsdam is about equivalent to the lower portion of the Wisconsin areas, and that the Acadian beds of Canada and Vermont, and perhaps the other Atlantic areas, are not appreciably different in age, but that the difference in faunæ is more the result of conditions upon which life depended than a difference in time.

§ 8. Dr. T. Sterry Hunt has been a strong supporter of the view that the Cambrian System exists in North America as a system distinct from the Lower Silurian (Ordovician), and advocates the use of the name Ordovician of Lapworth in place of Lower Silurian and the retention of the term Cambrian for the strata of the first fauna. He placed the Upper Taconic of Emmons in the Cambrian and gave a table showing the nomenclature and classification of North American rocks (Can. Rec. Sci., vol. i, p. 81, 1884).

§ 9. The accompanying observations on the geologic sections of a portion of the Cambrian System and their contained faunas are also given that the student may know the data upon which the writer proposed dividing the Cambrian system of North America into subdivisions in 1883 (Cambrian Syst. U. S. and Canada; Bull. Phil. Soc. Washington, vol. vi, p. 98, 1883).

We will begin with an examination of the Western Vermont sections of the borders of Lake Champlain, where the Georgia Formation first yielded a portion of its characteristic fauna.

GEORGIA FORMATION.

§ 10. The history of the Georgia Formation as we find it in the Geology of Vermont, vol. i, pp. 357–8, 374, 1861, is as follows:

Primitive Argillaceous Slate: Prof. Chester Dewey's Geological map of Berkshire, Mass.; Columbia and Rensselaer Counties, New York; American Journal of Science and Arts, 1st ser., vol. viii, 1824.

Primitive Argillaceous Slate: Geological Report of Massachusetts, 1832.

Black Slate and Taconic Slate: Roofing slate of the upper part of the Taconic System; Prof. E. Emmons's works on the Taconic System, 1840–1860.

Hudson River Group or Lorraine Shales: Geological map of New York, 1842; also in the Paleontology of New York, vol. i, by Prof. James Hall, 1847.

"*Roofing Slate of the Taconic System*," but considered as of the *Hudson River Group*: Reports on the Geology of Vermont, 1845–1847, by Prof. C. B. Adams.

Upper part of the Hudson River Group, or a distinct group above the Hudson River Group: Quoted by Prof. James Hall, from the opinions of Sir William E. Logan; Twelfth Annual Report of the Regents of the University of the State of New York, 1859.

Upper Hudson River Group: Elementary Geology, thirty-first edition, p. 411; by Edward Hitchcock and C. H. Hitchcock, 1860.