

Utah by the United States Government surveys; and at Kicking Horse Lake, British America, by the Canadian Geological Survey. In this paper I have endeavored to sum up the results of past work and my own investigations, and to establish, on a firmer stratigraphic and paleontologic basis, the Cambrian system of the Continent. The work is necessarily imperfect, but it clears the way for future investigation.

ON THE USE OF THE NAME TACONIC.

§ 142. Several American authors claim that the name Taconic should be used to include the strata characterized by the first or Primordial fauna of Barrande. If this is done, the term "Cambrian" will necessarily be dropped. In reading over the arguments, pro and con, respecting the use of Taconic, I have been influenced by a desire to do justice to the work of the author of the "Taconic System" and to retain a name proposed by an American geologist. It is with regret that I find myself compelled now to use Cambrian in preference to Taconic, especially as the Middle Cambrian fauna of this paper is the fauna of the Upper Taconic of Emmons, as defined by him in 1855 (*Amer. Geol.*, pt. 2, pp. 49-69, 1855).

§ 143. There is no doubt that Dr. Emmons was correct in classifying the Upper Taconic as pre-Potsdam. To him belongs the credit of recognizing and describing the Middle Cambrian series of North America as a distinct formation both on structural and paleontologic grounds; and it is regretted that we cannot unite with Professors Marcou and Winchell in applying the name Taconic to the formation. If we do so, the great Lower Division, described by Dr. Emmons as the typical Taconic, will be dropped entirely, and the Upper Taconic, which is not now known to occur in the Taconic area, would be taken as the true Taconic, which it does not appear to be, although Dr. Emmons included the "Black Slate" in it in 1847.

§ 144. Dr. Emmons deserves great credit for the work that he did. Struggling under adverse circumstances, at a time when there was almost nothing known of the pre-Potsdam strata of North America, and when geologic methods were yet in their beginnings, he accomplished a work, in one of the most complicated regions of American geology, the central idea of which, that a great series of Paleozoic strata of pre-Potsdam age existed east of the Hudson River shales of the valley of the Hudson and Lake Champlain, we now know was correct. In the face of the almost united opposition of his contemporaries he maintained his position; and it is one of the misfortunes of his career that he began his work on the Taconic System in the Taconic area, instead of Western Vermont or along the Hudson River, as he would then have established his Upper Division first and given it a name under which the Cambrian series of the continent might have readily been assembled.

§ 145. It may be that when the entire extent of the typical Taconic