

§ 153. After describing the "Rocks of the Taconic System" in a general way the author then takes each formation up in detail, beginning with the western mass of slate which is denominated "Taconic Slate" (p. 150). It is the first member of the Taconic series described, and, I think, occupies the position assigned to it by its author as being older than the Potsdam sandstone of New York, and unconformable to the Hudson River shales.

§ 154. The Sparry limestone is next described, and then follows the "Magnesian Slates," the "Stockbridge Limestone," and the "Granular Quartz."

§ 155. On page 163 various conclusions of a general character are given, and in the eighth we find the "Taconic" correlated with the Lower Cambrian of Sedgwick:

S. The Taconic rocks appear to be equivalent to the Lower Cambrian of Professor Sedgwick, and are alone entitled to the consideration of belonging to this system, the upper portion (of the Cambrian) being the lower part of the Silurian System.

§ 156. The next extended publication by the author of the "Taconic System" is in the Agriculture of New York, vol. i, 1847. Dr. Emmons's view of the presence of a system of rocks older than the Lower Silurian of the New York section is evident from the following extracts (page 46):

In the following pages I believe the reader will be satisfied that in these rocks we have, for this country at least, the true *paleozoic base*, and that in them exist those organic forms which are strictly entitled to the designation *protozoic*.

This fact is found in the existence of peculiar fossils on both sides of the Atlantic, which, so far as discoveries have yet been made, are confined to the slates of the Cambrian and Taconic System; and now the great object of the writer is to show that the above question has not been settled right or according to facts; or, in other words, that the Taconic rocks are not the Hudson River slates and shales in an altered state or that all the Cambrian rocks are not Lower Silurian (p. 49).

I shall take the broad and distinct ground that the Taconic System occupies a position inferior to the Champlain division of the New York System, or the Lower Division of the Silurian System of Mr. Murchison. In order to prove that this position is well chosen it will be necessary to refer the reader to localities where one system of rocks reposes upon the other, and that I might set this beyond the possibility of a doubt I have sought those points where the slates of the Taconic System come in contact with the lower limestones, or with the Potsdam sandstone of the New York System (p. 55).

§ 157. In the section (page 63, fig. 7) given as showing the position and order of the Taconic rocks, we find essentially the same order as in that of the report of 1842, and beneath it the author begins the description of the rocks composing the Taconic System with the description of the black slate overlying the "Taconic Slate" and its contained fossils. The "Black Slate" he considered as indicating a distinct rock from the Taconic Slate, and to be the highest member of the Taconic System. The fossils described are typical of the fauna preceding the Potsdam fauna, and occupy the stratigraphic position, in relation to the Potsdam series of New York, assigned them by Dr. Emmons.