

The ore-bed where most largely developed attains a thickness of about thirty feet, and in places where it has been opened up by exploratory works, it has been found to afford from ten to twenty feet in thickness of good ore. This ore is a red hematite, sometimes compact and laminated, but more frequently of an oolitic character occasioned by the arrangement of the peroxide of iron in minute concretions enveloping grains of sand. By the increase of these siliceous grains it passes in the poorer portions into a sort of ferruginous sandstone. Similar beds of fossiliferous ore are well known to occur in the Clinton group of New York and Pennsylvania, and Prof. Hall informs me that they are found also in the Lower Helderberg series of New York.

Along the different lines of outcrop above referred to, this bed has been traced for several miles, and being of a hard and resisting character, it rises into some of the higher elevations of the country. Though not one of the richest ores of the district, its great quantity and accessibility render it highly important for practical purposes. The analyses made of it show a percentage of metal varying from 43 to 54 per cent. The foreign matter is principally Silica, and the proportions of Phosphorus and Sulphur are small—one of the specimens analyzed affording none whatever, another .22 Phosphoric Acid and .29 Sulphur. These analyses were made at the instance of Mr. E. A. Prentice, now organizing a company to work this and other deposits in the district. The principal exposures of this bed are distant only twelve miles from the great collieries of the East River of Pictou, and less than ten miles from the Pictou and Halifax Railway. This deposit was first described by Mr. R. Brown in Haliburton's History of Nova Scotia, 1829, and subsequently by the writer in Acadian Geology. More recently exploratory works have been carried on and a practical report made by Mr. G. M. Dawson, Associate of the School of Mines, London; and the bed has been traced and collections of its fossils made by Mr. D. Fraser of Springville.

(2) *Hematite and Magnetic Iron of Nictaux and Moose River.*

This deposit takes us to the other extremity of Nova Scotia, and brings us a stage higher in geological time, or to the period of the Oriskany Sandstone. It would indeed appear that the conditions of ore-deposit so marked in Eastern Nova Scotia in the upper Silurian, were continued in the western part of the Province into the Devonian. In many specimens of the Nictaux