

the low grade or blast furnace ores than to the highly crystalline pyrolusite for which the market is restricted. Of the geographical position of the ore deposits little need be said beyond the fact that the worked and, as far as is yet known, the workable deposits are all situated within New Brunswick and Nova Scotia. Throughout these provinces are found many comparatively extensive deposits of the crystalline and semi-crystalline ores, viz: pyrolusite, manganite and psilomelane, as well as large areas of wad or bog—manganese. The crystalline ores are, in the majority of cases, found in rocks of Lower Carboniferous age, while the bog ore deposits, being of recent formation, are found overlying rocks of any formation from the pre-Cambrian upwards.

*New Brunswick.*—In New Brunswick the most important deposit of the crystalline ores is that at Markhamville, Sussex, Kings Co., from the workings of which upwards of 20,000 tons have been shipped. The ore deposits are irregular beds, pockets and veins in a small area of Carboniferous limestone, on the northwest side of which are located the workings. Many of these ore bodies have attained large dimensions, one of them affording in the neighborhood of 4,000 tons of manganite with a considerable proportion of pyrolusite. The discovery of manganese at this point was made in 1862, when it was worked by Mr. Wm. Davidson, of St. John, until 1865, after which the property passed into the hands of the Queen Manganese Co., by whom it was operated under the management of Major A. Markham until 1889, when it again changed hands and was operated, still under Major Markham, by the Pope Manganese Co. Owing to the location of the deposits, in a valley cut through the softer limestones, no regular system of mining has been attempted, the operations being, until quite recently, altogether in the form of drifts and open cuts with which the hill on the north and west side of the property is literally honey-combed. During 1890, however, explorations were being made by means of the diamond drill, with the result that two deep-seated deposits had been found and were being sunk upon.

Of the ore shipped from this mine two distinct classes are recognized, viz: "Blast furnace ore," consisting almost entirely of manganite, and high grade or "grey ore," consisting of pyrolusite. The following analyses are of "high class manganese ore from Markhamville, New Brunswick" and are taken from "The