

that the depth is far too great ever to be ascertained. From the quantities of hematite, the *hydrate* of iron, or ochrey, brown and yellow, oxides of the metal contained in the soil, the main deposit may be traced on the surface. With these indications, and two small openings made at a limestone quarry, I followed the ore to the distance of three quarters of a mile; but the length of the ore bed, like its depth, is unknown. The course of the stratum, or vein, which affects the magnetic needle in a slight degree, is nearly east and west, and appears to be direct. From those facts it may be observed, that the ore itself is perfectly inexhaustible, and its situation most favourable for mining. The site most advantageous for removing the ore, is apparently on the farm of — Slack, senr., and the adjoining lot westward, occupied by — Forsyth. On the farm of the former, the trench was opened, where the ore is abundant and excellent in quality. It is specular iron, of the richest variety. From a specimen taken from a mass at the bottom of the cutting, I have obtained of 100 parts,

Oxygen, - - 30

Iron, - - - 70—100

It will smelt readily, and evidently yield soft malleable iron.

Along the surface of the bed, or vein, there are several varieties of ore. Besides the hydrate and common brown, red and yellow oxides, there are hematitic and micaceous iron ores; the latter is abundant. These varieties have no doubt resulted from the decomposition of the compact masses of specular iron by being exposed to meteoric agents. The specular ore is similar to that smelted and manufactured at Rossie, St. Lawrence County, State of New York.

Limestone for a flux, occurs in thick strata, and a sparry stratum of that rock probably forms the southern wall of the great ore bed. It frequently con-