

the resemblance, loose masses of Limonite are found in the vicinity of the vein, giving rise to the expectation that a vein or veins of this mineral may be found to be associated with the specular ore. The ores of this vein in Pictou County are nearly pure peroxide of iron, containing from 64 to 69 per cent. of metal, and can be obtained in great quantity from the outcrop of the vein where it appears on the rising grounds.



*Ideal Section, showing the general relations of the Iron Ores of the East River of Pictou.*

1. Great bed of Red Hematite.
2. Vein of Specular Iron.
3. Vein of Limonite.
- (a) Older Slate and Quartzite series, with Trap, &c.
- (b) Lower Helderberg formation and other Upper Silurian rocks.
- (c) Lower Carboniferous of the East Branch of East River.

## *(2) Limonite veins of the East River of Pictou.*

The valley of the East River of Pictou above Springville is occupied by a narrow tongue of Lower Carboniferous rocks, having at one side the slates containing the ore last mentioned, and on the other a more disturbed country already referred to as containing the great Lower Helderberg bed of Hematite. It is highly probable that the river valley follows the line of an old pre-carboniferous line of fracture, denuded and partially filled with the Lower Carboniferous beds, including large deposits of limestone and gypsum. At the line of junction of the Carboniferous and older rocks on the east side of the river, occurs the great Limonite vein of the district, forming a vein of contact of exceeding richness and value. It follows the sinuosities of the margin of the older rocks, and varies in thickness and quality in different places; being apparently richest opposite the softer slates and where these are in contact with a black manganesian limestone, which here, as in many other parts of Nova Scotia, forms one of the lowest members of the Carboniferous series. The ore is sometimes massive but more frequently in fibrous concretionary balls of large size, associated with quantities of