

The Upper Silurian district is marked by the occurrence of beds of red hematite, some of which reach large dimensions. Allusion has already been made to the basin-shaped synclinals presented by these strata. One of these synclinals in Blanchard settlement has a width of one and a half miles, and a length of about three and a half miles. Owing to the wooded character of much of the ground at this point, the exact thickness of the basin cannot be given. Its western apex rests on a mass of the indurated slaty breccia, already alluded to, and has been for a short distance a good deal broken by faults.

On the southern side of this basin, a bed of ore from 3 to 5 feet in thickness has been traced for about three miles, and maintains a moderate dip to the north. The reverse outcrop, or southerly dip, of this bed has been observed at several points on the north side of the basin, and several beds of ore are believed to occur between them in the flat-lying band of measures forming the axis of the synclinal. About 700 feet below the northern outcrop of this bed is an exposure of a bed of red hematite, commonly known as the Big Blanchard bed. This bed stands nearly vertical, and varies in width from 30 to 100 feet. No attempts have yet been made to trace it beyond its natural exposure, which is about half a mile in length.

At a vertical distance below the southern outcrop of the upper bed, corresponding closely to the distance between it and the big bed on the north side, are strong surface indications of the reverse outcrop of the big bed. Should this bed be proved to extend over the area indicated it would yield an immense amount of ore. The northern end of this synclinal is broken by faults bringing up lower measures; and a little further north the Webster red hematite is met with a strike nearly at right angles to that of the beds just described, and a northerly dip at angles of  $15^{\circ}$  to  $50^{\circ}$ .

The exact relationship of the Webster ore to that of Blanchard has not yet been clearly made out, but it may be taken to represent one of the outcrops of the big bed brought up by a transverse folding. It has been traced for about four miles, and varies in thickness from 15 to 40 feet. The best ore extends for about one mile each way from Sutherland's River, and the bed then becomes poorer by degrees from excess of silicious matter, until it passes into a ferruginous quartzite. At several points, beds of quartzite are found intercalated in the ore, but do not pass into it, being sharply defined by smooth partings. This ore is not fossiliferous, and may be con-