

valley continues northward into Harrington, and after a short interval shows an isolated patch of limestone of about a mile and a half in length, by a mile in breadth, possessing, of course, a synclinal form. Beyond this, the valley splits into two, and while one branch runs rather north of N. E., the other turns N. of E. Each of these valleys is paved with limestone, the distribution of which shews a continuation of the synclinal form, with a bend more to the eastward than before.

The calcareous band on the western side has been traced to the north boundary of the township of Harrington, whence it crosses into Montcalm. It there appears to turn to the westward, but it has not yet been farther accurately examined. The eastern branch has been followed for between six and seven miles into Wentworth, when it appears to turn upon an anticlinal axis, and proceeding in a bearing S. S. W., for seven miles, it attains the southern boundary of the township, close upon the east side of the northern prolongation of the intrusive syenite. It runs in the same bearing for about three miles along this eastern side, into Chatham, and becomes deflected to the S. E. by the main body of the syenite, to which it runs parallel for about three miles. It then folds upon the axis of a synclinal, and running N. N. E. for upwards of five miles, returns into Wentworth, where it gradually bends round more to the eastward, and in about five miles reaches a position in the Gore of Chatham. It here folds over upon the axis of an anticlinal, and turning S. S. E. it maintains this course for about eight miles, in which it crosses into the Seigniory of Argenteuil and reaches the vicinity of Lachute, where it once more bends upon a synclinal axis, and proceeding eastward for about a mile, plunges under the Potsdam Sandstone and is lost.

In the winding course derived from the plications of the strata, the limestone usually presents a valley on the geographical surface; but to the west of all the folds that have been described, a bold ridge of gneiss runs from the front of Grenville to the rear of Harrington, the distance being about twenty miles and the bearing N. N. E. About midway, on the west side of this ridge, there are two areas about five miles long and broad, presenting the form of valleys, which are underlaid by limestone, so distributed as to render it probable that they are two outlying parallel troughs joined together, belonging to the same calcareous sheet as the one described. There would thus be four main synclinals and three main anticlinals, and the breadth they occupy altogether is about eighteen miles, giving about four and a-half miles for the breadth of each undulation.