

light yellowish-grey sandstones, underlaid by dark bluish green arenaceous shales of a rather brittle nature. The rapids here doubtless owe their origin to these softer shales, which have been denuded and washed down the river. A few fossils were found in a stratum of rock which was ferruginous. The beds are almost horizontal, dipping very slightly to the west, and extend quite a distance west, south and east of this exposure, being well exposed at Aylmer and Britannia, as well as at Skead's Mill, where there is a quarry of building stone from which many of the finest edifices in Ottawa have been partially or wholly built.

II. Another interesting exposure of this formation, doubtless connected with that just described, occurs on the south-western shore of McKay's Lake, New Edinburgh, the strata here being but little superior stratigraphically to those at Des Chênes. This is brought to sight by an extensive fault running in an easterly direction across the measures of the Cambro-Silurian formations here, and referred to in the Geology of Canada, 1863, a downthrow on the north side of the fault being clearly shown. Altogether, the beds form a thickness of some 20 feet, and appear quite destitute of fossils; the upper measures consist of a very brittle series of greenish-grey argillaceous shales which cleave at all angles and disintegrate to some extent. This exposure is part of one of two anticlinals, the other being at Hog's Back, in Nepean, Ont., while in the synclinal basin between them are comprised the Black River, Trenton and Utica formations, together with the Pliocene and drift deposits.

III. The summit of the anticlinal at Hog's Back, Nepean, has been denuded and broken, a fault of several feet—again a downthrow on the north-eastern side of the fault—occupying the place where the rocks were rent. Here the sandstones predominate, and but very few shales occur. The hard quartzose beds pass from areno-argillaceous shales to calcareous sandstones, whilst the latter are immediately overlaid by limestones holding numerous fossil organisms. A band of the most argillaceous sandy beds yielded great numbers of the typical species *Lingula Belli*, (Billings), also an abundance of a lamellibranchiate mollusca, which may prove very interesting to palaeontologists, as