

it and deposited them wherever it chanced to be when the ice ceased to move forward. In connection with this it is urged that blocks of stone, entering the bottom of the glacier under certain conditions, gradually rise to the surface and in this way often reach a height far above their original position. It may be remarked that more or less serious objections have been raised against all these explanations.

LEDA CLAY.

The next formation in ascending order is the Leda clay, which is common in all the lower levels of the Ottawa Valley, where it forms broad stretches of level country. It is a bluish-gray clay, somewhat unctuous, and when dry becomes very hard and cracks into square or oblong shaped blocks. In Ross and Bromley townships there are large areas covered with this clay. In one place in Ross is a plain five miles across which extends lengthwise for a much greater distance. The approximate height of these plains is from four hundred to four hundred and fifty feet. Though the roads traversed passed over many miles of this formation the only fossil found was a fragment of a shell which was too small to be identified.

For a description of this deposit below the City of Ottawa, I quote the following. "Along the south bank of the Ottawa River from the city of Ottawa to Hawkesbury, and again from Point Fortune to its junction with the St. Lawrence the lower clay is seen in banks of from twenty to forty feet in height. . . . The greatest breadth of the level clay surface which has been observed here is in the township of L'Orignal, where it extends about fifteen miles back from the river. . . . On the north side of the Ottawa, from Hull to Isle Jesus, the clay often covers a considerable breadth between the river and the Laurentian Hills and extends among these for several miles up the larger tributaries."* Mr. A. E. Barlow states that this clay is abundant at

* Geology of Canada, p. 916.