

certain local and limited areas as capable of being affected by the agencies above mentioned, there is little doubt that they are together wholly inadequate to explain the phenomena of striated surfaces (see Prestwich's geology) over such vast areas, as it is known that these surfaces extend, in some cases, for hundreds of miles.

But, of the sedimentary strata which, during this period of submergence, were being laid down over the remains of the glacial epoch the lowermost series consists of bluish gray clays of more or less plasticity and varying greatly in thickness in different parts of this region. There are a number of sections both natural and artificial which this district has afforded. Amongst the latter may be mentioned the Rideau Canal, which from the "Basin" to the "Deep Cut" "gives a very good idea of the thickness of these clays there. Then the hundreds of sections which the recent excavations carried on by the City Engineer have exhibited, where in almost every instance, the clays may be seen in their normal position. Then come the brick-yards owned by the Messrs. Odell, Clark, Nicholson, Graham and others. In the first mentioned of these have been found remains of a fossil sponge, the *Tetlea Logani* of Dawson, together with shells and *foraminifera* and a bone sent to Prof. Cope for identification, all of which were presented to the writer through Mr. A. P. Low, of the Geological Survey of Canada. But whilst artificial sections are often more convenient in ascertaining the relative thickness of the different kinds of strata, nevertheless, the natural sections which are met with everywhere, enable us to obtain the geographical distributions, extent and thickness, sometimes with greater facility, as these sections are very numerous indeed. Along the left bank of the Rideau River, *e. g.*, from the Hog's Back to the Falls, down the Ottawa as far as Green's Creek, and farther across the river in Hull Township as far as Ironsides, and above that towards New Chelsea, and in Nepean and Gloucester Townships, there are hosts of natural sections, where the "Leda clay" formation—so-called on account of the prevalence of a small bivalve shell, *Leda (Portlandia) arctica*,—Gray is well exposed.

An interesting point about these clays and accompanying strata is the fact that they occur in many instances in the shape of "terraces" or small plateaus following one another at different levels. By one stand-