

years,—in that work of excavation alone, and leaves himself no farther sums to set off against the various geologic processes that may have preceded it.

In this case, as in the other, let us grant, for the argument's sake, all the facts. Let us admit that the trench through which the St Lawrence now flows has been cut by the river in somewhat less than six thousand years. But through what, let us ask, has it been cut? There can exist no doubt on the subject: it has been cut through an ancient graveyard of the Upper Silurian system, charged with the peculiar fossils characteristic of what are known as the Clinton and Niagara groupes, and common, many of them, to the Upper Silurian of our own country and of the European continent. *Leptaena depressa* and *Pentamerus oblongus*, two of the most frequent shells of the deposit, occur also in equal abundance in the Dudley and Caradoc formations of England; its prevailing encrinite, *Ichthyocrinus lævis*, is scarce distinguishable from an encrinite which I have often picked up in the quarries of the "Wren's Nest" (*Ichthyocrinus pyriformis*); while its prevailing trilobite, *Phacops limulurus*, seems to be but a transatlantic variety of our well-known *Asaphus* (*Phacops*) *caudatus*. Farther, the sequence of the various formations both above and below the Niagara group is shown with remarkable distinctness in that part of the world along the shores of the great lake. They may be traced downward, on the one hand, along the Lower Silurian deposits, to the non-fossiliferous base on which the system rests, and upwards, on the other, through the Old Red Sandstone and the Carboniferous Limestone, to the workable Coal Measures. Both stratigraphically and palæontologically the place in the scale of the Niagara graveyard can be definitely determined; and a superficial deposit on the heights in its immediate neighbourhood shows that the river did not begin its work of excavation among its long extinct shells, trilobites, and corals, until after not only the great Palæozoic,