

they were at first mistaken.* With the *Lingula* occurs another small placunoid shell, allied to, if not identical, according to Professor E. Forbes, with a fossil which occurs in company with a small *Lingula* in the lowest beds of the English Silurian series at Buiith, in Brecknockshire. As this is perhaps the most ancient fossiliferous rock of which the position has been well determined in North America, it is highly interesting that one of its commonest organic remains should belong to a living genus (*Lingula*), and that its form should come very near to species now existing. Throughout so vast a series of ages has Nature worked upon the same model in the organic world! Nor are the signs of uniformity confined to these phenomena, for they extend equally to the shape of the ripple mark on the ledges of sandstone laid open to view above the chasm, where two beautiful waterfalls are seen on the Ausable river. The ripple-like ridges and furrows exhibit their usual parallelism and ramifications as sharp as if they had been made yesterday. On my way back over the lake to Burlington, I saw, on looking from our boat through the clear and shallow water near the shore, a similar ripple in the light yellow-coloured, loose sand, extending over hundreds of acres, and proving that it is not merely on the beach between high and low water mark that the movement of the water can produce those sinuous ridges, but also to a certain depth below.

Some of the freshwater shells inhabiting Lake Champlain are of species peculiar to this lake, as, for example, *Limnæa gracilis*, specimens of which were

* See Emmons's Report on the Geology of New York, p. 218.