

above it—proclaiming intelligibly that the waters were disturbed when the Conglomerate was deposited, more quiet when the materials of the sandstone were laid down, and still quieter when the fine sediments settled down which formed the Clinton marls and the Niagara shale. Please bear in mind this law of the succession of different kinds of sediments.

Now let us examine the contents of these Silurian strata. The geologist has been around with his hammer, and looked them through and through. True, he has not broken to pieces one-millionth of the Silurian rocks of the country; but he has broken an immense number of samples from many localities and many horizons; and we justly believe that the system has been fairly probed. In the lowest beds—the Oneida Conglomerate—nothing of much importance has been found. This does not surprise us, for shells and corals must have been ground to powder, had they been mingled with the rolling stones of which that formation is composed. The Medina sandstone was fine enough to allow the accumulation of some organic remains. We find small heaps of petrified sea-weeds. One sort is regularly jointed, and presents a somewhat elegant appearance (*Arthrop'y-cus*). We are much interested to be able to discover which way the currents set over the soft sand. In New York it is common to find a sandstone surface with a little shell lying, convex side up, and beyond it a train or drift of sand a few inches long, and diminishing to a point. How similar were the conditions of the sandy beach then and now! How surprising that a little ridge of soft sand formed millions of years ago, should have been so carefully preserved through all the storms and revolutions of the world to our day!

It is in the limestones, and especially the *Niagara Limestone*, that we find the relics of the ancestors of the Pearly Nautilus. It may seem strange that most of them are straight rather than coiled. But their structures are the same, and the coiling is a circumstance. These straight nautiloid shells we call *Or-tho-cer'-a-tites* (the technical name of the genus being *Or-thoc'-e-ras* or “straight horn”). Like Nautilus, the