

A geologist will perceive by a glance at the section that the valley of the Somme must have been excavated nearly to its present depth and width when the strata of No. 3 were thrown down, and that after the deposits Nos. 3, 2, and 1 had been formed in succession, the present valley was scooped out, patches only of Nos. 3 and 2 being left. For these deposits cannot originally have ended abruptly as they now do, but must have once been continuous farther towards the centre of the valley.

To begin with the oldest, No. 3, it is made up of a succession of beds, chiefly of freshwater origin, but occasionally a mixture of marine and fluviatile shells is observed in it, proving that the sea sometimes gained upon the river, whether at high tides or when the fresh water was less in quantity during the dry season, and sometimes perhaps when the land was slightly depressed in level. All these accidents might occur again and again at the mouth of any river, and give rise to alternations of fluviatile and marine strata, such as are seen at Menchecourt.

In the lowest beds of gravel and sand in contact with the chalk, flint hatchets, some perfect, others much rolled, have been found; and in a sandy bed in this position some workmen, whom I employed to sink a pit, found four flint knives. Above this sand and gravel occur beds of white and siliceous sand, containing shells of the genera *Planorbis*, *Limnea*, *Paludina*, *Valvata*, *Cyclas*, *Cyrena*, *Helix*, and others, all now natives of the same part of France, except *Cyrena fluminalis* (fig. 17), which no longer lives in Europe, but inhabits the Nile, and many parts of Asia, including Cashmere, where it abounds. No species of *Cyrena* is now met with in a living state in Europe. Mr. Prestwich first observed it fossil at Menchecourt, and it has since been found in two or three contiguous sand-pits, always in the fluvio-marine bed.

The following marine shells occur mixed with the fresh-