

table matter, and are divided into thin layers. The imbedded shells belong to the genera *Planorbis*, *Lymnea*, *Paludina*, *Unio*, *Cyclas*, and others, all of British species, except a minute *Paludina*, now inhabiting France. (See fig. 117.)

The *Cyclas* (fig. 118) is merely a remarkable variety of the common English species. The scales and teeth of fish of the genera Pike, Perch,

Fig. 118.

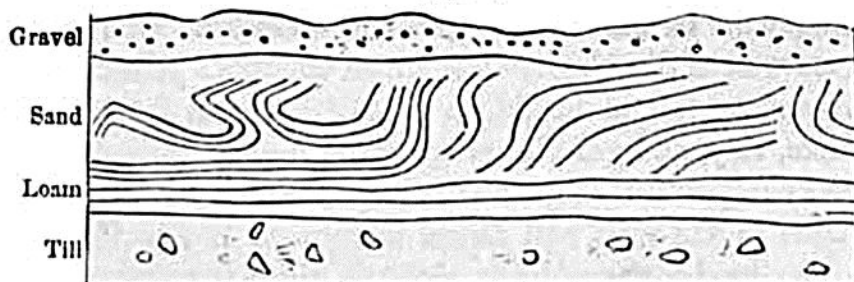
*Cyclas (Pisidium) amnica*, var.?

The two middle figures are of the natural size.

Roach, and others, accompany these shells; but the species are not considered by M. Agassiz to be identical with known British or European kinds.

The series of formations in the cliffs of eastern Norfolk, now under consideration, beginning with the lowest, is as follows:—First, chalk; secondly, patches of a marine tertiary formation, called the Norwich Crag, hereafter to be described; thirdly, the freshwater beds already mentioned; and lastly, the drift. Immediately above the chalk, or crag, when that is present, is found here and there a buried forest, or a stratum in which the stools and roots of trees stand in their natural position, the trunks having been broken short off and imbedded with their branches and leaves. It is very remarkable that the strata of the overlying boulder formation have often undergone great derangement at points where the subjacent forest-bed and chalk remain undisturbed. There are also cases where the upper portion of the boulder deposit has been greatly deranged, while the lower beds of the same have continued horizontal. Thus the annexed section (fig. 119) represents a cliff about

Fig. 119.



Cliff 50 feet high between Bacton Gap and Mundesley.

50 feet high, at the bottom of which is *till*, or unstratified clay, containing boulders having an even horizontal surface, on which repose conformably beds of laminated clay and sand about 5 feet thick, which; in their turn, are succeeded by vertical, bent, and contorted layers of sand and loam 20 feet thick, the whole being covered by flint gravel. Now the curves of the variously colored beds of loose sand, loam, and pebbles