

whether to class the forest bed and overlying strata as post-pliocene, or to consider them as beds of passage between the newer pliocene and post-pliocene periods. The fluvio-marine series usually terminates upwards in finely laminated sands and clays without fossils, on which reposes the boulder clay.

Fig. 28



*Cyclos (Pisidium) amnica* var.?

The two middle figures are of the natural size.

This formation, No. 4, is of very varying thickness. Its glacial character is shown, not only by the absence of stratification, and the great size and angularity of some of the included blocks of distant origin, but also by the polished and scratched surfaces of such of them as are hard enough to retain any markings.

Near Cromer, blocks of granite from six to eight feet in diameter have been met with, and smaller ones of syenite, porphyry, and trap, besides the wreck of the London clay, chalk, oolite, and lias, mixed with more ancient fossiliferous rocks. Erratics of Scandinavian origin occur chiefly in the lower portions of the till. I came to the conclusion in 1834, that they had really come from Norway and Sweden, after having in that year traced the course of a continuous stream of such blocks from those countries to Denmark, and across the Elbe, through Westphalia, to the borders of Holland. It is not surprising that they should then reappear on our eastern coast between the Tweed and the Thames, regions not half so remote from parts of Norway as are many Russian erratics from the sources whence they came.

According to the observations of the Rev. J. Gunn and the