morning with my own hands no less than seventy distinct species, besides several corals, in a pit at Burwell's Mill. Upon the whole, I procured 147 species of shells, exclusive of Balani and corals, from this formation in the United States, and chiefly during the present expedition and near the banks of the James river.

That they belong to the same age as the Miocene deposits of Europe may be inferred:—first, from their position, as they overlie the Eocene marls containing shells, resembling those of the London and Paris basins:—secondly, from the close affinity of many of the most abundant species to fossils of the crag of Suffolk and the French faluns:—thirdly, from the proportion of the fossil shells, identical in species with mollusca, now inhabiting the American coast, the proportion being about one sixth of the whole, or about seventeen per cent., in those compared by me, for I have been able to identify 23 out of 147 with living shells. This relation of the fossil and recent fauna had already led Mr. Conrad and the Professors Rogers to the same conclusions, and they had correctly called these deposits Miocene. Fourthly, the corals, of which I obtained thirteen species, agree all generically with those of the Miocene beds of Europe, and some specifically, as a lunulite, the same as one from the Suffolk crag, and *Anthophyllum breve*, common in the faluns of Touraine. Fifthly, the cetacea also agree generically, and the fish in many cases specifically, with European Miocene fossils, and no remains of reptiles have been found on either side of the Atlantic in this formation.

When we consider how remarkably the *species* of the Suffolk crag differ from the shells of the contemporaneous faluns of the Loire, the geologist will not be