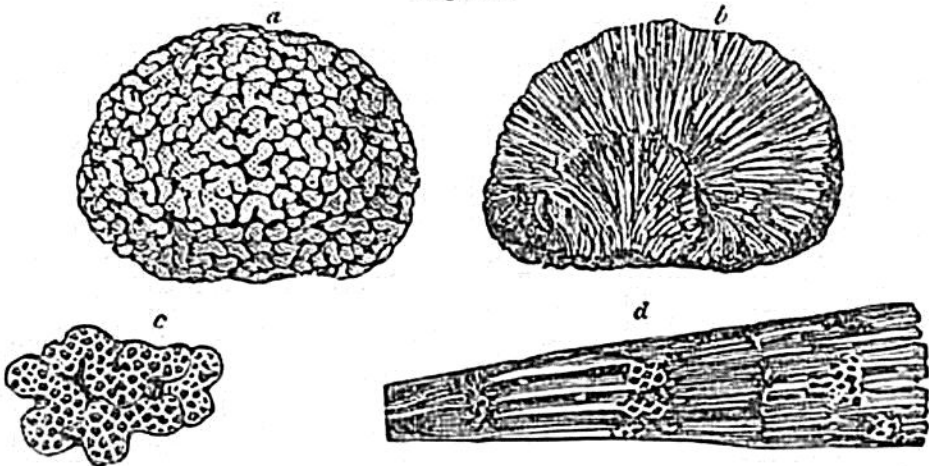


and of which a fragment (the Hempstead beds of Forbes) escaped denudation in England.

The distinctness of the fossils of the Coralline from those of the Red Crag, arises in part from their higher antiquity, and, in some degree, from a difference in the geographical conditions of the submarine bottom. The prolific growth of corals, echini, and a prodigious variety of testacea and bryozoa, implies a region of deeper and more tranquil water; whereas, the Red Crag may have been formed afterwards on the same spot, when the water was shallower. In the mean time the climate may have become somewhat cooler, and some of the zoophytes which flourished in the first period may have disappeared, so that the fauna of the Red Crag acquired a character somewhat more nearly resembling that of our northern seas, as is implied by the large development of certain sections of the genera *Fusus*, *Buccinum*, *Purpura*, and *Trochus*, proper to higher latitudes, and which are wanting or feebly represented in the inferior crag.

Some of the corals and bryozoa of the lower Crag of Suffolk belong to genera unknown in the living creation, and of a very peculiar structure; as, for example, that represented in the annexed fig. (154), which is one

Fig. 154.



*Fascicularia aurantium*, Milne Edwards. Family, *Tubuliporidae*, of same author.

Bryozoan of extinct genus, from the inferior or Coralline Crag, Suffolk.

- a. Exterior.
- b. Vertical section of interior.
- c. Portion of exterior magnified.
- d. Portion of interior magnified, showing that it is made up of long, thin, straight tubes, united in conical bundles.

of several species having a globular form. The great number and variety of these zoophytes probably indicate an equable climate, free from intense cold in winter. On the other hand, that the heat was never excessive is confirmed by the prevalence of northern forms among the testacea, such as the *Glycimeris*, *Cyprina*, and *Astarte*. Of the genus last mentioned (see fig. 155) there are about fourteen species, many of them being rich in individuals; and there is an absence of genera peculiar to hot climates, such as *Conus*, *Oliva*, *Mitra*, *Fasciolaria*, *Crassatella*, and others. The cowries (*Cypræa*, fig. 153), also, are small, and belong to a section (*Trivia*) now inhabiting the colder regions. A large volute, called *Voluta Lamberti* (fig. 156), may seem an exception; but it differs in form from the