

I have seen them, on decomposing, leave the surface of every ploughed field literally strewed over with this fossil oyster. The *Trigonellites latus* (*Aptychus*, of some authors) (fig. 352) is also widely dispersed through this clay. The real nature of the shell, of which there are many species in oolitic rocks, is still a matter of conjecture. Some are of opinion that the two plates formed the gizzard of a cephalopod; for the living *Nautilus* has a gizzard with horny folds, and the *Bulla* is well known to possess one formed of calcareous plates.

Fig. 352.



Trigonellites latus.
Kimmeridge clay.

The celebrated lithographic stone of Solenhofen, in Bavaria, belongs to one of the upper divisions of the oolite, and affords a remarkable example of the variety of fossils which may be preserved under favorable circumstances, and what delicate impressions of the tender parts of certain animals and plants may be retained where the sediment is of extreme fineness. Although the number of testacea in this slate is small, and the plants few, and those all marine, Count Münster had determined no less than 237 species of fossils when I saw his collection in 1833; and among them no less than seven species of flying lizards, or pterodactyls (see fig. 353), six saurians, three tortoises, sixty species of fish, forty-six of crustacea, and twenty-six of insects. These insects, among which is a libellula, or dragon-fly, must have been blown out to sea, probably from the same land to which the flying lizards, and other contemporaneous reptiles, resorted.

Fig. 353.



Skeleton of *Pterodactylus crassirostris*.
Oolite of Pappenheim, near Solenhofen.

MIDDLE OOLITE.

Coral Rag.—One of the limestones of the Middle Oolite has been called the "Coral Rag," because it consists, in part, of continuous beds of petrified corals, for the most part retaining the position in which they grew at the bottom of the sea. In their forms, they more frequently resemble the reef-building poliparia of the Pacific than do the corals of any other member of the Oolite. They belong chiefly to the genera *Thecosmilia* (fig. 354), *Protoseris*, and *Thamnastræa*, and sometimes form masses of coral 15 feet thick. In the annexed figure of a *Thamnastræa* (fig. 355), from this formation, it will be seen that the cup-shaped cavities are deepest on the right-hand side, and that they grow more and more shallow, until those on the left side are nearly filled up. The last-mentioned stars are supposed to represent a perfected condition, and the others an immature state. These coralline strata extend through the calcareous hills of the N. W. of Berkshire, and north of Wilts, and