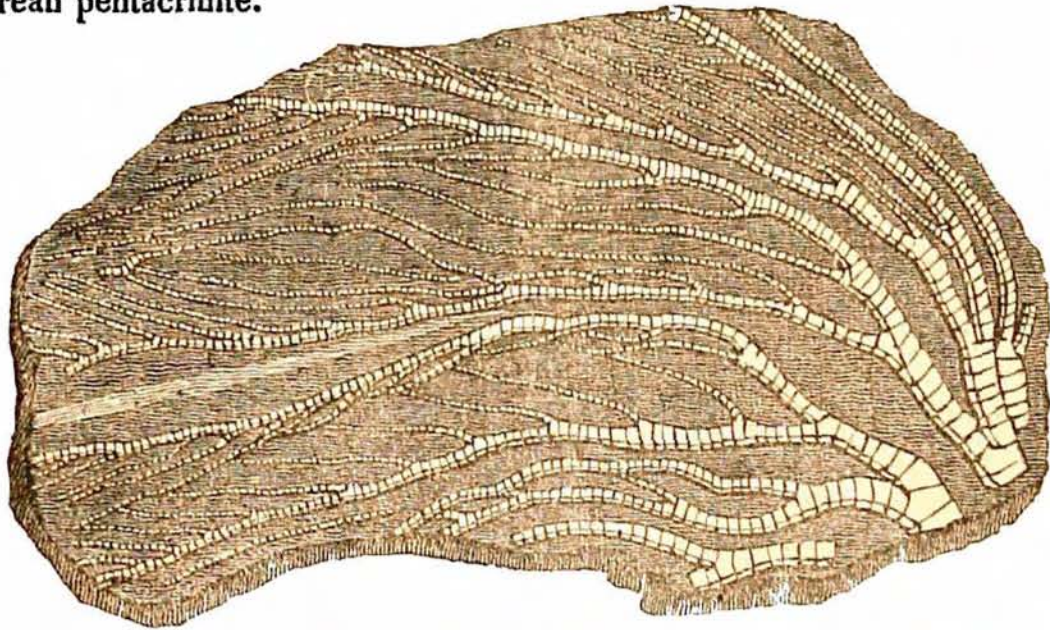


shells. Univalve unchambered shells are not numerous in this formation, but a great variety of bivalve shells occur in it. The gryphite (*Gryphæa incurva*), a deeply incurved bivalve shell, abounds so much in some of the beds of lias, that in France it has received the name of *Calcaire à gryphites*.* Pentacrinites also abound in the upper part of the lias; and in conjunction with gryphites, and the ammonites that have a ridge between two furrows round the back of the shell, are characteristic of the lias formation. The pentacrinite and encrinite were zoophytes with long articulated stems and branches: in the encrinite the stem is round, in the pentacrinite pentagonal. The annexed cut represents part of the branches or arms of the Briaean pentacrinite.



The most remarkable organic remains are, however, certain species of fish, and vertebrated animals allied to the order of lizards: the fossil fish are generally found in the middle of flattened balls of limestone, in which the form of the body and the scales is often well preserved. The saurian or lizard-shaped animals have left no trace of the form of their bodies, except what can be ascertained from the remaining skeletons. To the Rev. W. D. Conybeare we are indebted for having determined the forms of two genera of these animals. The ichthyosaurus, or fish-lizard, had a head resembling a dolphin more than a lizard, and numerous conical teeth; the orbit of the eye is uncommonly large. Some idea may be formed of the magnitude of these animals, when I mention that the orbit of the eye in a head belonging to Mr. Johnson of Bristol, which I measured, was ten inches long and seven broad: the orbit in another head, belonging to the

* The *Gryphæa incurva* has not, that I know of, been found in England either above or below the lias, and therefore may be regarded as alone characteristic of this formation. These shells occur very abundantly, and are provincially called Millers' Thumbs.