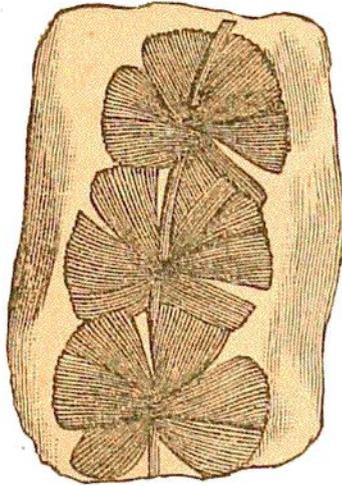


Fig. 242.



Flowering plants began to appear in the coal formation. Several species of palms and of grasses are reckoned among the monocotyledons. The dicotyledons are mostly reckoned as belonging to the Coniferæ or pine tribe, especially to the *Araucaria*, a species of which now grows on Norfolk Island, on the west coast of America, and is cultivated frequently in conservatories. Trunks of the fossil trees have been found in several quarries in Scotland, penetrating the strata obliquely, and being sixty to seventy feet long, and from four to six feet in diameter at the base. Coniferous plants have a peculiar microscopic structure, which is retained in true petrifications, and can be made manifest by polishing thin plates.

*Animals.*—This is the first formation in an ascending order in which any of the Protozoa have been found of much size, although they occur as deep as the Lower Silurian. Here we have in great abundance in the Carboniferous Limestone, the *Fusulinæ*, which belong to the class Foraminifera. These are organisms mostly microscopic, of a simple structure, protected by a shell, and bearing a considerable resemblance to chambered shells. The number found fossil amounts to 73 genera and 657 species, increasing in number and variety as we ascend, and attaining their maximum in the present seas. We give only one example here, the *Fusulina cylindrica*, considerably magnified in Fig. 243.

A tertiary limestone, the "Calcaire grossier," is used at Paris as a building stone, and so abounds in Foraminifera, that we may almost regard the capital of France as constructed of these minute shells.

Of the Bryozoa, we give one example from the Carboniferous group, which is Coral, the *Archimedipora Archimedea* (Fig. 244), from Kentucky. Its name is derived from its resemblance to the Archimedean screw. The Bryozoa are now put among the Molluscs.

Fig. 243.



Fig. 244.

