

This mark often enables the geologist to determine from what part of the rock series a fossil specimen was obtained, and thus helps to fix the age of the rock in which it occurs.



A few living fishes, such as the Port Jackson shark, have strong dorsal spines, covered with small teeth, as weapons of defense. These have been found abundantly with the fossil species, and have been described by the name of *Ichthyodorulites*. The finest examples of these which we have met in European works is shown on Fig. 253, which we introduce here, although it belongs to the Wealden formation. It belongs to the genus *thesodus*.

We give in Fig. 254 a most remarkable and beautiful example of what is most probably an ichthyodorulite from the coal formation of our own country. It was found by Dr. S. B. Bushnell, of Montezuma, in Indiana, and presented by him, through Rev. John Hawks, to the senior author of this work, by whom it was deposited in the cabinet of Amherst College. It has the aspect of a shark's jaw, but was most probably dorsal. It has been referred to Prof. Agassiz for description. If it be an ichthyodorulite, it is the most beautiful that has ever been discovered. It was found a foot above a bed of coal.

Agassiz denominates some of the old fossil fishes, *Sauroid*, or like Saurian reptiles, because their anatomical structure, especially their large striated conical teeth, resemble those of saurians. They are an example of what we shall find common, viz., a union of characters in some fossil animals now found only in different families.

*Reptiles.*—We have presented decided evidence that reptiles began to exist as early as the Devonian period. As we should expect, we find them, though not very abundantly, in the Carboniferous strata. Professor Owen has paid great attention to this class of animals, and some

Fig. 254.

