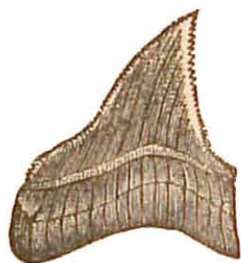


ture of this order of fishes we have the secret of the extremely formidable character of the teeth, spines, and stings that co-existed along with it. Such of the fishes of the present time as live on crustacea and the shelled molluscs,—such as the Wrasse or rock-fish family, and at least one of the Goby family, the sea-wolf,—have an apparatus of crushing teeth greatly more solid and strong than the teeth of such of their contemporaries as are either herbivorous or feed on the weaker families of their own class. A similar remark applies to the ancient sharks, as contrasted with those of later times. So long as the strongly armed Ganoidal order prevailed in nature, the sharks were furnished with massive crushing teeth; but when the Ganoids waned in creation, and the soft-scaled Cycloid and Ctenoid orders took and amply filled the place which they had left vacant, the well-known modern form of sharks' teeth was introduced,—a form much rather suited for cutting soft bodies than for crushing hard ones. In

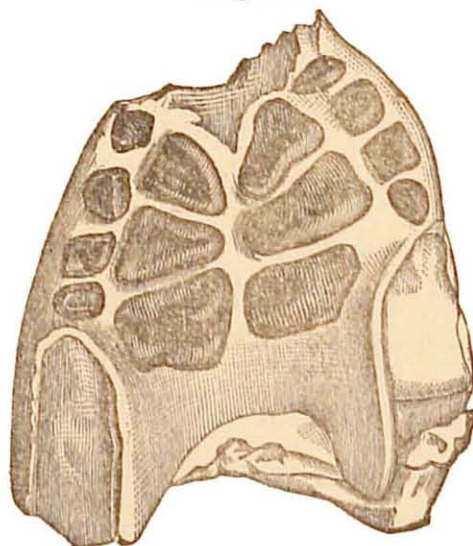
Fig. 59.



CARCHARIAS PRODUCTUS.

Cutting Tooth. (*Miocene.*)

Fig. 60.



PLACODUS GIGAS.

Crushing Teeth. (*Trias.*)

fine, the offensive weapons of the times of the Coal Measures seem very formidable, just as those personal weapons of the middle ages seem so that were borne at a time when every soldier took the field cased in armour of proof. The slim