lower jaw appears to have hinged, and which apparently represents the lower part of the temporal bone. Not less singular was the form of the creature's under jaw, (fig. 21.)

Fig. 21.

UNDER JAW OF DIPTERUS.

I know no other fish-jaw, whether of the recent or the extinct races, that might be so readily mistaken for that of a quadruped. It exhibits not only the condyloid, but also the coronoid processes; and, save that it broadens on its upper edges, where in mammals the grinders are placed, so as to furnish field enough for angular patches of teeth, which correspond with the angular patches in the palate, it might be regarded, found detached, as at least a reptilian, if not mammalian, bone. The disposition of the palatal teeth of the *Dipterus* will scarce fail to remind the mechanist of the style of grooving resorted to in the formation of mill-stones for the grinding of flour; nor is it wholly improbable that, in correspondence with the rotatory motion of the stones to which the grooving is specially adapted, jaws so hinged may have possessed some such power of lateral motion as that exemplified by the human subject in the use of the molar teeth.

The protection afforded by the osseous covering of both the upper and under surface of the cranium of this ichthyolite has