

*mus wurdemani*; with which, however, they share the peculiarity of having, on the interbrachial sides of the mouth frames, a series of deep furrows for the attachment of the exterior mouth frame muscle. The nerve-ring is scarcely covered by the linear, narrow, peristomial plate, which is in two pieces. A good example of detail of finish is found in the mouth angle, as seen in profile (fig. 13). There are the mouth papillæ (*d*) an even row; and above them, in a close clump, the tooth papillæ (*d'*); and, still above them, the teeth (*d''*) which have a quasi-enamelled grinding end. They are supported by a well-marked jaw-plate (*e*) which has little pits above and cross furrows below, for the insertion of the minute tooth, and tooth papillæ muscles. Outside this are the sockets of the mouth tentacles, whereof the upper one has a fixed scale, and the lower may be said to have the outermost mouth papilla as its scale. Outside these, again, may be seen the wing of the mouth frames (*f*), whose opposite face bears the muscle furrows already referred to.

Some good specific characters may be found in the internal structure. Thus *Ophiocoma aethiops* is distinguished from *Ophiocoma riisei* and *Ophiocoma echinata* by a finer scaling of the central disk (six in the length of 1 mm.), and by larger supplementary scales to the radial shields. *Ophiocoma erinaceus* has the corresponding disk scaling much coarser (three in 1 mm.) than in *Ophiocoma scolopendrina* (five in 1 mm.), and the jaw cover of the latter, though narrow, is thick and well marked. *Ophiocoma pumila*, which leads a group with long arms and a more delicate structure, has large radial shields without the usual projecting corners, while their radiating rows of thick, overlapping scales are almost wanting. The marginal scale belt, however, is well developed. *Ophiocoma pica* has an even but coarse scaling (two in 1 mm. near centre of disk); the radial shields, narrower than in other species, are continued towards the centre by a narrow row of supplementary scales; the genital plate is prolonged, by upright scales, to the mouth shield.

On the borders of this genus lie *Ophiocoma papillosa* and the old species *Ophiocoma nigra*. The former I should doubtless refer to *Ophiopteris* were I sure that it truly corresponded with its type-species *Ophiocoma antipodum*. It differs from *Ophiocoma* (1) in having only three narrow mouth papillæ on each side, and more numerous tooth papillæ; (2) in having small scale spines overlapping the base of the upper arm spine [but this is found in *Ophiocoma canaliculata*]; (3) *Ophiocoma papillosa* (and presumably *Ophiocoma antipodum*) has papillose tentacles; (4) and almost no striations for muscle attachment on the interbrachial sides of the mouth frame wings; (5) in well developed jaw-covers, which, however, are not larger than in *Ophiocoma nigra*. Otherwise, the inner structure, as well as the outer in *Ophiocoma papillosa* is the same as in *Ophiocoma*. As to *Ophiocoma nigra* it differs from the genus in its large and thick peristomial plate, and in having hollow arm spines, which last peculiarity draws it towards *Ophioconis*. Its relations to *Ophiocoma miliaria* and *Ophiocoma antarctica* will be shown by the following table:—