

anal or excretory vesicles (Pl. X. fig. 19), differ from the two other forms in the possession of a terminal opening. They are much smaller than the siphons, and without hepatic ridges, but exhibit a similar composition of four different segments; a basal pedicle (fig. 19, *qp*), a thick-walled hemispherical basigaster, at the base of which is inserted the single long palpacle (*r*), a large thin-walled stomach (*q*), and finally a conical or pyriform chromadenia, with a distal opening. This latter segment, which is comparable to the proboscis of the siphons, is most characteristic of the cystons; it is a colour-gland, which produces a great mass of pigment-granules, and extrudes it through the terminal anus. The dark glandular entoderm of the chromadenia is much thicker than the colourless entoderm of the thin-walled stomach; the pigment-granules secreted by it are usually red or brown, sometimes intermingled with small crystals. When a quietly floating *Forskalia* is touched, it suddenly discharges the contents of the chromadenia, and makes the surrounding water dark and intransparent. Kölliker (4, p. 8) and Leuckart (5, p. 17, and 8, p. 348) have already described this interesting excretion; but they suppose that there is no true opening at the distal end of the cystons, and that the pigment is discharged by rupture of their wall. Repeated observations on the living *Forskalia tholoides* have convinced me that the pyriform red chromadenia, or the opaque distal portion of the cyston, possesses a constant terminal opening. This anus or excretory opening, however, is difficult to observe in the closed state (as is also the case in the mouth and the anus of many lower animals). The opening has been observed too by Studer in the cystons of *BathypHYSA abyssorum*, which he has described as bracts (40, p. 20). The excretion of the pigment-masses and the darkening of the water by it have probably the same physiological function as in the Cephalopoda;—to protect the attacked animal from its persecutors, and facilitate the capture of food-animals.

*Palpons.*—Whilst one cyston only belongs to each cormidium of probably all Forskalidæ, the number of true palpons (formerly confounded with the cystons) is usually much larger. In *Forskalia* there belong usually two palpons (arising from a common pedicle) to each cormidium, in *Forskaliopsis* three, four, or more; in some of the largest forms a pediculate bunch of four to six or more palpons arises from the trunk between each siphon and the appertaining cyston. The true palpons differ from the latter mainly in the absence of a distal opening; they are closed at the pointed distal end, and communicate only by the pedicle with the tube of the trunk. Their size is usually about half that of the siphons and cystons, but very variable according to the different state of contraction. Sometimes the palpons are simple pyriform or spindle-shaped vesicles, at other times divided by an annular constriction into a smaller proximal and a larger distal part. The pointed apex of the latter is usually provided richly with larger cnidocysts and long sensitive cnidocils, sometimes also coloured by pigment. Their function is sensory. The long palpacle which arises from