crinus kerguelensis, was obtained in various shallow-water dredgings round the coast of Kerguelen Island, and was also found at 75 fathoms near Heard Island. In its general facies it has a singular resemblance to *Antedon eschrichti* and its allies; while *Promachocrinus abyssorum*, from 1600 and 1800 fathoms (Stations 147, 158) is more like the circumpolar and abyssal members of the *Tenella*-group among the species of *Antedon*. Two of these were associated with it at Station 147, while at Station 158 there was also obtained the remarkable genus *Thaumatocrinus*.

Although there are ten radials in the calyx of *Promachocrinus*, the symmetry of the basals is only pentamerous. Five of the radials are essentially like those of *Antedon*, with a smooth dorsal surface and two openings on the inner face, between which is the shallow groove lodging the radial axial furrow. This seems to have been converted into a canal by the radial process of a rosette, just as in *Antedon* and *Actinometra* (Pl. I. fig. 8*c*; Pl. III. figs. 4*c*, 5*b*); but I was unfortunately unable to obtain this rosette entire, for the central portions of it broke away from the peripheral part which remained firmly attached to the radials (Pl. I. fig. 1*c*).

In many of the five-rayed Comatulæ the interradial angles of the rosette become connected with the five elements of the basal star, which are developed in the synostosis between the centro-dorsal and the radials as I have explained elsewhere;[1] and these basal rays lie beneath the sutures between the five primary radials (Pl. I. fig. 6*c*; Pl. II. figs. 1–5, *c*; Pl. III. figs. 1*c*, 3*a*, 3*b*, 4*c*; Pl. IV. fig. 3*c*; Pl. V. figs. 1*c*, 5*d*). In *Promachocrinus*, however, with its ten radials (or at any rate in *Promachocrinus kerguelensis*), there is a basal ray beneath the middle of every alternate radial (Pl. I. figs. 1, *a*, *c*). Its inner end is broad and flattened, and extended laterally into two processes which meet those of the adjacent basal rays beneath the dorsal surface of the intervening primary radials (Pl. I. fig. 1*c*). When these ten radials are separated from one another the basal rays come away with the "interradial radials" to which they are attached (Pl. I. figs. 2, *a*, *b*), and their impressions are left upon the inner ends of the dorsal surface of the true primary radials with which they were in contact (Pl. I. figs. 1, 3, *c*).

The isolated centro-dorsal of *Promachocrinus* is indistinguishable from that of *Antedon*. Its ventral surface is marked by five grooves lodging the basal rays (Pl. I. figs. 1*c*, 5). But there are only five large radial areas without any indication whatever that each of these lodges portions of two additional radials, as well as its true or primary one. In the large centro-dorsal of *Promachocrinus kerguelensis* the five interradial pillars within the central cavity are very distinct, as is also the case in *Antedon antarctica* (Pl. I. figs. 1, 6, *d*).

In one of the three species of *Promachocrinus* the rays divide so as to produce twenty arms; but they remain simple in the other two species, just as in *Eudiocrinus* and *Thaumatocrinus*. In both alike the first pinnule is on the second joint above the

[1] *Trans. Linn. Soc. Lond.* (Zool.), 1879, ser. 2, vol. ii. pp. 95–100.