

is extremely delicate, and I do not detect in the fragments preserved any trace of an ovarial inflation. All the fragments appear to give a part, if not the whole, of the basal portion. This membrane is smooth and stretched, and a few widely spaced microscopic thornlets are present, grouped in more or less definite, rather broad, transverse bands. Examination under the microscope with suitable illumination reveals the presence of underlying plates upon which the thornlets are borne, and I have on these grounds ranked the form as a *Freyella*. A few small pedicellariæ are also present. There is no trace of any calcareous ridges or transverse sacculi with crowded pedicellariæ as in *Brisinga*. Beyond the basal part of the ray the abactinal membrane is extremely delicate and perfectly transparent.

The ambulacral furrow is wide, and measures about 1 mm. at a part where the ray measures 1.75 mm., at 11 mm. from what I believe to be the base of the ray. The adambulacral plates are much longer than broad, and the ninth measures nearly 1.5 mm. at 12 mm. from the base. The shape of the plate seen actinally greatly resembles that of a long caudal vertebra, its furrow margin being deeply concave, and the outer margin to a less degree. The breadth of the plate at the adoral extremity is rather greater than at the aboral extremity. The adambulacral armature consists of:—(1.) A minute, delicate, inner spine, directed over the furrow, about 0.5 mm. in length, placed at the aboral extremity of the plate, directed horizontally and at a slight angle adorally. This spinelet is covered with very thin membrane, on which are borne near the tip two or three or more small pedicellariæ. On the inner part of the ray a second spinelet is placed at the adoral end of the plate, but not more than half the size of that above described; it is also directed horizontally, but at a slight angle aborally. This small adoral spinelet does not appear to extend further than the eighth plate. (2.) On the actinal surface of the plate is an exceedingly delicate, tapering, needle-like actinal spine, the ninth from the base measuring 2.5 mm. in length. It is covered with a delicate membranous sheath, on which are borne a considerable number of pedicellariæ, and is articulated on a small tubercular eminence rather nearer the aboral end than midway on the plate. (3.) A single elongate, extremely delicate lateral spine is articulated on a small plate—a rudimentary infero-marginal plate—so intimately united to the adambulacral plate as to appear like a tubercular eminence on its surface. One appears to be present on each alternate plate. The twenty-second or twenty-third spine (which appears to be the longest on the fragments preserved) is about 5 mm. in length, and is invested with a thin membranous sheath, having a small saccular extension at the distal extremity, and bearing a great number of minute pedicellariæ usually on peduncles. The ambulacral ossicles or segments are remarkable for their length, and when seen from above have the appearance of two thin cylindrical rods placed side by side.

The actinostome is wide, and measures 7.5 mm. in diameter in a disk 11.5 mm. in diameter. The mouth-plates are small and rather elongate, slightly expanded and rounded anteriorly, and the median suture-line is not closed. Their armature consists of three