with four marginal spines, while Miers represents it as broadly rounded posteriorly and armed with six minute marginal spines. It therefore seems possible that there may be two closely related forms instead of a single species.

Although this species is much better known than any other Protosquilla no figure has ever been published except the drawing of the telson given by Miers. A minutely accurate figure of the entire animal is very much needed. All the specimens the sex of which is given are males, except the single female recorded by Miers from Amboina.

## 4. Protosquilla cerebralis, n. sp. (Pl. XIV. figs. 2, 3 ; Pl. XVI. figs. 2, 3).

Diagnosis.-Protosquilla with the body almost uniform in width from the anterior edge of the carapace to the posterior edge of the telson. The two slender acute anterolateral spines of the rostrum are nearly as long as the acute median spine. The carapace is rectangular, with rounded angles, and the fifth thoracic somite is slightly exposed dorsally. No dorsal carinæ on the carapace or on the first seven exposed somites. Lateral processes of the sixth and seventh thoracic somites longer than those of the eighth, and rounded. Postero-lateral angles of all the abdominal somites obtuse. Dorsal surface of fifth abdominal somite with a median thickened carina, and, on each side of this numerous sublongitudinal ridges, converging posteriorly. Sixth abdominal somite immovably fused with the telson and ornamented by swollen convoluted ridges symmetrically arranged in a complex pattern. Telson nearly twice as wide as long, deeply notched on the middle line behind, with its posterior margin rounded and ending in three pairs of short acute spines. Dorsal surface of the telson sculptured in a complicated symmetrical convoluted pattern, consisting of a very complex central pattern which is subtriangular and divided into five principal convolutions; two submedian convex oval convoluted lobes, and a number of parallel longitudinal lateral ridges. Dactylus of raptorial claw greatly swollen at base.

General Description.-The median spine of the rostrum is slender, acute, longer than the antero-lateral spines, and reaching about halfway to the tips of the eyes, which are subcylindrical, with the corneal portion inclined backwards externally. The antero-lateral spines of the rostrum are slender and acute. The flat carapace is a little longer than wide, slightly narrower than the exposed thoracic somites, and nearly rectangular with the antero- and postero-lateral angles, rounded and nearly alike. The two longitudinal sutures are prominent and continuous from the anterior to the transverse posterior edge, and there is a faintly marked transverse cervical suture. The sixth and seventh thoracic somites are wider than the eighth, and their lateral edges are produced backwards and rounded, as seen from above, while in profile the anterior angle is obtuse and the posterior one nearly a right angle. The middle of the lateral edge of the eighth is produced into a subacute lobe over the basal joint of the appendage. The eighth is a

