thoracic segment often shows traces of an imperfect division into two. Anterior antennæ six-jointed, posterior rather slender, united lengths of the last two joints about equal to the second joint, claw rather long and slender. The eyes are slightly separated, the pigment bodies deep violet in colour. The male is elongate-ovate in shape, the second, thirl, and fourth joints of the abdomen are lunated, but the angles are neither mucronate nor crenulated.

Habitat.-In lat. $33^{\circ} 31^{\prime}$ S., long. $74^{\circ} 43^{\prime}$ W. (Station 299) ; lat. $41^{\circ} 54^{\prime}$ S., long. $54^{\circ} 4 \mathrm{~S}^{\prime} \mathrm{W}$. (Station 319) ; lat. $36^{\circ} 9^{\prime}$ S., long. $48^{\circ} 22^{\prime} \mathrm{W}$. (Station 324) ; lat. $37^{\circ} 3^{\prime} \mathrm{S}$., long. $44^{\circ} 17^{\prime}$ W. (Station 326) ; lat. $5^{\circ} 28^{\prime}$ N., long. $14^{\circ} 38^{\prime}$. W. (Station 349) ; lat. $7^{\circ}$ $33^{\prime} \mathrm{N}$. , long. $15^{\circ} 16^{\prime} \mathrm{W}$. (Station 350) ; lat. $10^{\circ} 55^{\prime} \mathrm{N}$., long. $17^{\circ} 46^{\prime} \mathrm{W}$. (Station 352) ; between Api and Cape York; off Port Jackson, Australia; off Sibago Island, and at other Stations amongst the Philippine Islands.

## 3. Saphirina reticulata, n. sp. (Pl. LI. figs. 12-14).

Male.-Length, 1-10th of an inch ( 2.55 mm .). Shape broadly ovate, length to breadth as one and three-quarters to one; forehead flattened and distinctly angulated at its junction with the lateral margin, marginal angles of all the segments obtuse; fourth abdominal segment lunated. Caudal lamellæ scarcely twice as long as broad, ovate, inner margin ending in a distinct tooth; setæ equal, short, two apical and two on the external margin. Anterior antennæ short, composed of five nearly equal joints, and bearing only a few very short setæ; posterior longer, finger about as long as the second joint, and having a rather long and slender apical claw. Inner branch of fourth pair of feet half the size of the outer branch. Conspicilla separate. Integument (except the caudal lamellæ) reticulated throughout; reticulations large, irregularly angular, and with beaded sutures. Under a high microscopic power the skin has a finely cross-hatched appearance, reminding one of shagreen or of the grounding of a mezzotint engraving. This peculiar skin-structure I have not seen in any other species. Colour deep brown.

Habitat.—South Atlantic ; in lat. $41^{\circ} 54^{\prime}$ S., long. $54^{\circ} 48^{\prime}$ W. (Station 319) ; and lat. $35^{\circ} 25^{\prime}$ S., long. $23^{\circ} 40^{\prime}$ W. (Station 132).

## 4. Saphirina serrata, n. sp. (Pl. XLIX. figs. 1, 2).

Female.-Length, 1-12th of an iuch ( $2 \cdot 1 \mathrm{~mm}$.). Cephalothorax five-jointed, very broad and subtruncate in front, obscurely angulated at the union of the anterior and lateral margins, posterior angles rounded off; last segment very small, rounded. Abdomen five-jointed, the segments of nearly equal length, second, third, and fourth lunated and finely serrated (as also the fifth) on the posterior margins. Caudal lamellæ

