The pleopoda in all except the first pair consists of two long, narrow, flat branches, of equal length and fringed with ciliated hairs; to the inner side of the anterior branch is attached a long stylamblys, whereas in the first pair of the male the inner branch is reduced to a small, rudimentary, membranous plate.

Geographical Distribution.—The range of this genus is extensive in area and variable in depth. In the West Indies it was taken by Professor Agassiz off Grenada, at a depth of 626 fathoms, and in the Sea of Antilles at a depth of 955 fathoms. The several specimens in the Challenger collection were taken at depths varying from 2150 fathoms to about 500, but it appears to me that Notostomus must be considered to be a deep-sea form, inasmuch as those localities in which it was got in a depth less than 1000 fathoms were in the vicinity of deeper water. On the southern coast of Japan, where Notostomus japonicus was taken, the station was on the verge of the 1000-fathoms line, beyond which the water rapidly deepens to 2000 and 3000 fathoms. So again on the eastern coast of South America, the soundings north and south show that the Atlantic in this region deepens very rapidly to 1000 and 2000 fathoms. In the Sea of Banda and off the Island of Celebes, specimens were brought up from a depth of 1425 fathoms and 2150 fathoms respectively.

The range in area of this genus is very great and almost cosmopolitan. It has been taken in the Atlantic among the West Indian Islands, off the eastern coast of South America, and in the middle of that ocean as far south as Tristan da Cunha. In the east it has been taken in the sea south of New Guinea, along the coast of Celebes, and as far north as Japan.

Notostomus patentissimus, n. sp. (Pl. CXXXIII.; Pl. CXXXIV. figs. 1, 2).

Carapace arcuate, dorsally carinated from the posterior margin to the rostrum, which is short, and horizontally straight. The lateral walls of the carapace are traversed on each side by five longitudinal carinæ, three of which extend from the frontal to the posterior margin, and the other two commence at the anterior margin of the branchial region and terminate in the posterior margin of the carapace.

Pleon arched and dorsally carinated; first two somites carinated but not dentate, the four following all carinated and posteriorly produced to a strong dorsal tooth.

Telson laterally compressed, dorsally grooved, and subequal with the inner, but not so long as the outer, plates of the rhipidura.

Ophthalmopoda pyriform.

First pair of antennæ about as long as the carapace.

Second pair of antennæ about as long again as the animal and carrying a scaphocerite that is broader at the base than at the distal extremity, which reaches considerably beyond the apex of the rostrum, and is armed on the outer margin with a conspicuous tooth.