The properties of this genus have already been discussed in such a detailed manner that no further explanatory remarks are necessary. I ascribe to the genus Leucilla the following species:—

Leucilla connexiva, n. sp.

uter, n. sp.

amphora, H.

Leucilla capsula, H.

(?) crustacea, H.

(?) echinus, H.

Leuconia, Bowerbank.1

Leuconidæ with the spicules of the parenchyma, irregularly disposed throughout and with flagellated chambers of more or less regularly rounded contour.

The connecting link between the genera Leucilla and Leuconia I see in Leuconia multiformis, n. sp., the relationship resting upon grounds quite analogous to those which induced me to associate my genus Anamixilla with the genus Amphoriscus. But if the phylogenetic affinities of some species of Leuconia are clear, this is by no means the case with respect to many other forms, which for want of detailed comparative investigations are to be temporarily referred to the same genus. Moreover, I feel certain that, in the course of time, my Leuconia will be subdivided at least into four, possibly even into more, quite independent genera. I say this with reference, for instance, to the species Leuconia alcicornis, G., Leuconia elongata, Sch., Leuconia cataphracta, H., which I am quite sure will be sooner or later elevated to be the representatives each of a special genus. same will probably take place with respect to the species Leuconia johnstonii, C., Leuconia stilifera, S., Leuconia saccharata, H., Leuconia ochotensis, MM.; and, on the other hand, with regard to the species Leuconia fistulosa, Bk., Leuconia pumila, Bk., Leuconia levis, n. sp. At present, however, the realisation of these subdivisions would be scarcely season able; it will be well to await further and more detailed comparative investigations, and provisionally I group in the genus Leuconia all the Leuconidæ which do not belong either to the genus Leucilla, to the genus Leucetta, or to the genus Pericharax.

Leucetta, Hæckel 2 (sensu mutato).

Leuconidæ, the skeleton of whose strongly developed cortex is quite different from that of the parenchyma.

The peculiarities of this genus, which has an analogue amongst the Syconidæ in *Heteropegma*, consist in the possession of a strongly developed cortex and of two quite different skeletons, that of the cortical layer being characterised by large spicules, that of

¹ Brit. Spongiad., i. p. 164, 1864.