

the accompanying drawings. Whether they are ova or spores, or whether they have any connection with Dr. Beale's entozoa, I have not been able to ascertain. The latter are by no means common in animals which I have examined in Ceylon; and only in one instance have I found these bodies and Dr. Beale's entozoon together in one specimen. They seem to lie loose among the muscular fibres of the heart; sometimes in large numbers together, at other times singly. Their great variety of form is very remarkable. Their minute size is shown in the scale to which they are drawn. Figs. C, D, E, are carefully copied with the camera lucida, and a power of 1000 diameters. The spherical body E is perhaps more common than the other forms, and is always of a golden brown colour. The others are sometimes of a dark olive brown. I have examined the parts of numerous healthy animals, and only in one instance (in the heart of a Sambur deer) have I found any of these bodies. In the hearts of three animals which died of murrain in one locality they were very plentiful. One of these was a cow in calf, and some were seen even in the heart of the foetal calf. I may mention by-the-by that the specimens from these three were examined on the day of death.

There is a drawing in the 'Micrographic Dictionary' of the spore of *Stilbospora macrosperma*, which has some slight resemblance to my Fig. C. Nearly all these bodies, however various in form, agree in the dotted appearance of their surface. I hope that some reader of the 'Microscopical Journal' may be able to throw some light on the nature of these.

CEYLON, Sept. 6, 1870.

V.—Notes on New Infusoria. By J. G. TATEM.

PLATE LXVIII. Upper portion.

OF the Infusoria, of which camera drawings are laid before you, I purpose giving such brief descriptions as may be necessary for their explanation.

I.—Fig. 1. A Diffugia of small size— $\frac{1}{300}$ th—with smooth, very transparent chitinous test, flattened beneath, rounded above, with circular, smooth, direct aperture, through which the sarcode flows in a feeble undivided stream, containing very minute, greyish granules. From the posterior part of the bottle-shaped body four filamentary diverging ligatures stretch to the fundus of the test, binding down and securing the animal in its suspended position. These filaments—extensions of the pellicular investment—have, I think, a peculiar interest, not only as the sole example known to me of such a structure among the fresh-water *Rhizopoda*, but as demonstrating a fact in the *Diffugiæ* at least, as much disputed as admitted

in the cognate naked *Amœbæ* of such a surface differentiation from the internal fluid sarcode, as may unquestionably be considered as distinctly cuticular.

For this form of *Diffugia*, I propose the specific name of *ligata*.

II.—The *Stylonychia*, Figs. 2 and 3, an aberrant form of *S. pustulata*, is a remarkable one; the rounded posterior end of the normal *S. pustulata* being in this example produced into a hyaline, extensible process or tail, of about one-third the entire length of the body, having a few stout setæ scattered on its upper edge and terminating in a palmate expansion fringed with spines. This tail is projected by the animal in a state of rest, but is instantaneously withdrawn when in motion. These extensions and retractions are attended by, and consequent on, changes in the outline of the body, which is elongated and narrowed in the one condition, shortened and broadened in the other (Fig. 3), its compression or expansion causing a propulsion of semi-fluid sarcode into, or a reflux from the caudal appendage, and thus effecting its protrusion or contraction.

III.—Of the *Vorticellid* (Fig. 4) I can only speak with hesitation and doubt. In no one of the half-dozen specimens met with, either through its own sensitiveness, as shown by the ready separation of the zooids from the stalk, or the restless movements of its host, have I had the opportunity of observing the expanded peristome and ciliary disc, though both are clearly discernible in their retracted condition. In that state they closely resemble those of an *Epistylis*, with which its general character suggests its association, and to that genus I shall venture to refer it, though presenting a wide divergence from the *Epistylid* type of ramification, in bearing its zooids at unequal heights. How far deviation from rule in this respect should operate in excluding it from the genus *Epistylis* I must leave, however, to more competent authority to determine.

Its specific characters are as follows:—

Epistylis ———? (Fig. 4). Zooids, two—one terminal, the second borne on a short stalk springing from below the middle third of main stem, similar, large — $\frac{1}{250}$ th — elongate elliptic, faintly transverse striate, colourless. Peristome and ciliary disc unknown, when retracted forming a mammillary projection at the summit of the zooid, contractile and several large food vesicles observed, but no nucleus. Stalk beautifully transparent, strongly and somewhat closely corrugated to near the base, where it is flattened and expanded with a few longitudinal striations.

Parasitic on *Cyclops quadricornis*.

