

- Fig. 39.* Egg of *Nais albida* (*ad nat. del.*), showing—*a*, shell; *b*, chalaza; *c*, yelk-bag; *d, d*, two yelks, each of which is now triglobular.
- Fig. 40.* Ditto, ditto, with one division only fissurating, and small cells without apparent fissuration appearing in the other two, which have become united.
- Fig. 41.* Ditto, ditto, ditto, more advanced.
- Fig. 42.* Ditto, ditto, ditto, with the two unfissurating lobes undistinguishably united, and forming one-half of the embryo, while the other lobe forms the other half, and is still further advanced in fissuration.
- Fig. 43.* Ditto, ditto, ditto, with fissuration complete, and the halves still united, but foreshadowing the line of separation, which extends from the notch inwards.
- Fig. 44.* Ditto, ditto, with the two embryos fully developed.
- Fig. 45.* Ditto, ditto, showing the development of sacs in the yelk, and subsequent production of monads: *a, a*, sac filled with granular matter passing into monads; *b, b*, sacs with fully developed monads leaving them; *c, c, c*, sacs from which all the monads have escaped; *d*, tubular form, in which the sac appears *outside* the shell of the ovum; *e, e*, effete contents of the yelk.
- Fig. 46.* Monads, more magnified (less than 1-5600th of an inch in diameter): *a*, just after exit; *b*, after loss of the cilium and commencement of tubulation.
- Fig. 50.* *Filaria* frequently found singly, or in more or less plurality, in the peritoneal cavity of *Nais albida*: *a*, oesophagus in a sheath; *b*, intestine enclosed in the hepatic sheath; *c*, anus; *d*, vulva; *e, e*, double ovisac.

#### X.—Note on the smaller British species of *Pisidium*.

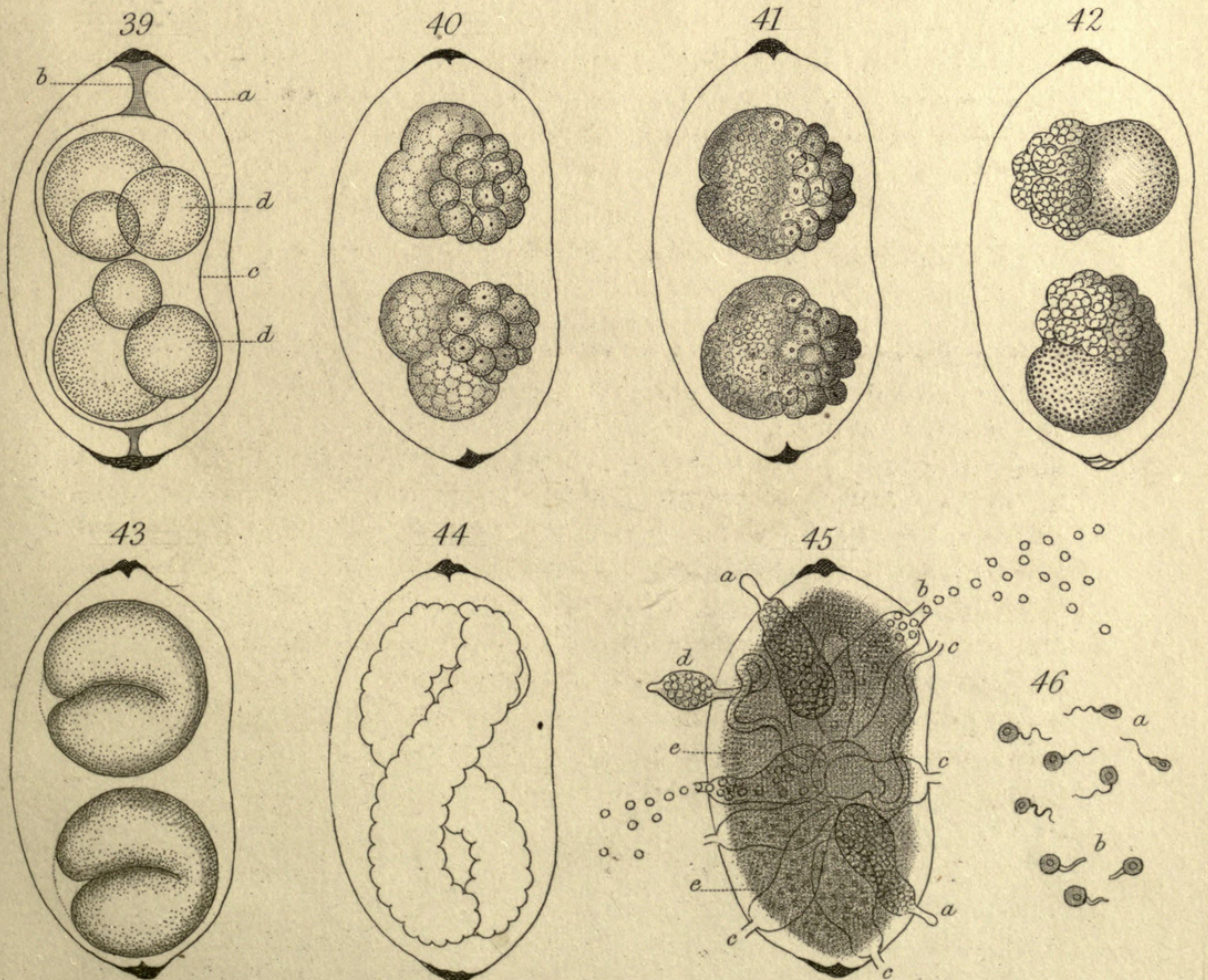
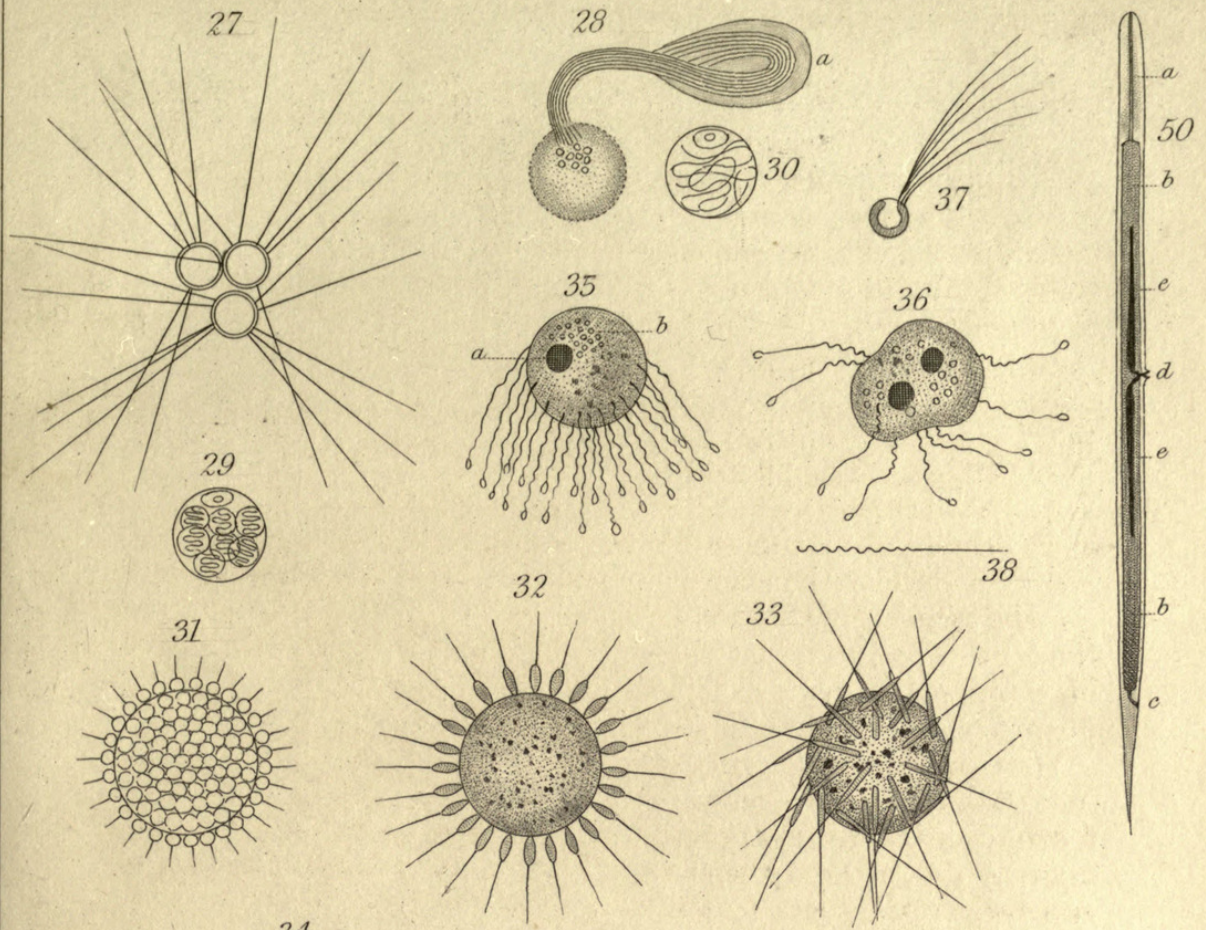
By the Rev. L. JENYNS, M.A., F.L.S. &c.

SINCE the publication of my monograph on the British species of *Cyclas* and *Pisidium* in 1832\*, I have received at different times, through the kindness of correspondents, many specimens of the smaller species of the latter of these genera, from various localities, for identification and comparison. Having lately had occasion to re-examine some of these more closely, I am induced to offer a few remarks respecting them for the benefit of those naturalists who interest themselves with these little mollusks.

*Pisidium Henslowianum*.—Fine specimens of a shell, measuring nearly  $2\frac{1}{2}$  lines in length, and exactly agreeing with this species, except in being entirely destitute of the lamelliform projection on the umbones, have been sent me from Ackworth, near Pontefract, and others from Ambleside, by Mr. J. W. Watson of the former place. From the absence of the appendage alluded to, I was for some time doubtful whether I was right in referring these shells to the *P. Henslowianum*, or whether they ought not more properly to be considered as large individuals of *P. pulchellum*. But on lately giving them a closer inspection, I per-

\* Camb. Phil. Trans. vol. iv. p. 289.











ceived that one of the smaller specimens from Ambleside *did* possess the appendage in question, though not quite so much developed as in the Cambridgeshire ones in my collection. This satisfies me that the appendage is not an essential character; and there being scarcely any other character, except greater size, by which the *P. Henslowianum* can be distinguished from the *P. pulchellum*, I am inclined to the opinion that these two constitute but one species, the former being only one of the numerous forms which this variable shell is liable to assume. There is no difference in the animal, nor in the habits of the two kinds respectively. If the *P. Henslowianum*, from any other yet to be discovered characters, be really distinct, I conceive that the normal form is rather the variety *without* appendages than the one with them, as the former seems the more plentiful of the two, and includes the largest specimens I have seen. Possibly the appendages are liable to wear off with age, especially in running water, where they are necessarily exposed to more friction.

*Pisidium pulchellum*.—There are three principal varieties of this species described by me in my monograph. For the first of these,—under an idea expressed formerly by myself, that it might constitute a distinct species,—Dr. Gray, in his edition of Turton's 'Manual of the Land and Freshwater Shells of the British Islands,' did me the honour to propose the name of *Jenynsii*. But I do not believe now that this variety is any more distinct from the var.  $\beta$  of my monograph, than both these varieties, as well as others not calling for any particular notice, are distinct from the *P. Henslowianum*. And as the latter name is of prior date to *pulchellum*, in respect of publication, I should propose that it be the one in future adopted as the general name for this species with its many varieties, more especially as it is to Professor Henslow that we owe the original discovery of both the species now brought together.

The variety which Dr. Gray has termed *Jenynsii* differs from the more ordinary form of *pulchellum* by the striæ being more deeply cut, and the shell being broader in proportion to its length. But, as regards the variation of the striæ, we have a somewhat parallel case in the two varieties of *P. amnicum* noticed in my monograph, and formerly considered by Dr. Leach as two distinct species, under the respective names of *Pera fluviatilis* and *Pera Henslowiana*. There can be no doubt that these last, of each of which I have specimens from the identical streams from which Dr. Leach received his, are mere varieties; nor is there any more doubt, in my opinion, that *Jenynsii* and *pulchellum* are likewise mere varieties of one species, dependent upon water and other local circumstances.





Jenyns, Leonard. 1858. "X.—Note on the smaller British species of *Pisidium*." *The Annals and magazine of natural history; zoology, botany, and geology* 2, 104–107.

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