

cies of Plumatella. Thus matters stood when Raspail was led, in 1826 and 1827, to examine the subject, and the result of his ingenious labours has been very curious, though some of his conclusions, notwithstanding the boldness of their enunciation, seem to me unproved, and one of them, which identifies the *Cristatella* with the *Alcyonella*, has already been shewn to be erroneous. He has, however, demonstrated very satisfactorily the entire sameness of the *Polypes à panaches* of Trembley, the Bell-flower animal of Baker, and the *Alcyonella* of Lamarck,—the variations in the polypidom, which had deceived all others, being produced by age, or by external and fortuitous circumstances, as for example by peculiarities in its site: when this is the floating leaves of Lemnæ, or the upper or under side of a stone, the developement is diffused, or lobed, or arborescent, or creeping, or massive and spongy, according as the polypidom has freedom to spread, or is restrained by its position, or is influenced by the mere gravitation of one part against another. I can find, however, in the beautiful series of figures which illustrate his Memoir, none to make me assent to Raspail's opinion that all the Plumatellæ are *certainly* mere variations of this zoophyte: at present the facts appear rather of an opposite tendency;—while, on the contrary, subsequent observations have shewn that he is right in considering as embryo *Alcyonellæ* the *Leucophra heteroclita* and *Trichoda floccus* of Muller, as well perhaps as the *Diffugia protæiformis* of Leclerc, although Ehrenberg declares against this conclusion.

Raspail's description of the zoophyte is admirable, and is rendered peculiarly interesting from the generalizations in physiology which the author ever and anon boldly hazards on certainly a very narrow basis; and the curious experiments detailed in it. He has fully recognized the merits of Trembley, and has confirmed his accuracy in most particulars; he has explained the cause which led Trembley erroneously to ascribe a retractor muscle to the body, the appearance being the result of a fold or plait in the tunic in certain positions of the body; he ascertained the position of the anus; gave a complete view of the tentacular apparatus, and an inimitable anatomy of the ova, which we shall transcribe at least in part. The ova, he says, are in general one-third of a millimetre in their longest diameter. On each of the two parallel faces we distinguish a shield, a little convex, and of the same shape as the egg itself, surrounded with a rim of the same colour and consistence. (Fig. 49, *a*.) In drying, these two faces approximate and become concave, while the rim remains unaltered. A section perpendicular to the two faces shews that the rim has no communication with the shield, (Fig. 49, *b*.); that it is distended with a cel-