ventricosa, Reuss, and Hauerina circinata, Brady, furnish intermediate links connecting the new group with Biloculina and Hauerina; but these need be no obstacle to a generic subdivision otherwise practically convenient.

Further research has shown that there exist a number of species, heretofore assigned to Hauerina and Quinqueloculina, which share the more important general characters of Planispirina communis and Planispirina contraria, and it has been found needful to devise a generic description in somewhat broader terms than would have sufficed for these two forms alone. To this end I propose the following amended characters:—

## Planispirina, Seguenza.

Test free, spiral, compressed; discoidal, crosier-shaped, or oblong; segments numerous: in the earlier stages either helicoid and non-septate (like *Cornuspira*), or segmented, the chambers being arranged on the Milioline plan; at a later period either planospiral (followed in some instances by a few segments arranged in a right line) or Milioline: the inner margin of each successive convolution spreading more or less over the lateral surfaces of the test, and producing a laminated condition of the walls. Aperture simple, variable in form, but not cribrate or porous.

Inasmuch as the number of segments in each convolution varies at different periods of the growth of the test, it is manifest that the distinction between *Planispirina* and

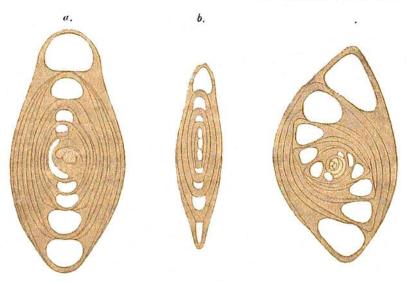


Fig. 5.—Transverse Sections of Planispirina.

Planispirina contraria,

Planispirina exigua, × 80 diam. Planispirina sigmoidea, × 40 diam.

Miliolina must rest chiefly on the Nummuline lamination of the shell-wall; and the same character together with the simple orifice serves also to distinguish the former from Hauerina.

The foregoing woodcuts illustrate this peculiar feature of the genus in its different