become separated (*Fig.* 16, a^1 p), the inner one retaining the form of a cone (p), and the hemispherical cavity (ca) thus left is filled by a homogeneous, transparent, faint yellow mass. The conical proboscis (p) extends through the whole depth of the cavity (ca), and within is occupied by a prolongation from the chymiferous cavity, which is thickly lined by reddish-brown granules and cells (c). The pedicel (a b) is a little longer than the medusa, and is pervaded by a broad chymiferous cavity, expanding into a still broader chamber (c), the digestive cavity proper of the medusa. Gradually the medusa, at the same time that it increases in size, becomes globular (*Fig.* 17, A), and the disk cavity (ca) assumes the form of a spherical chamber, through which the cylindrical proboscis (p) projects, from base to apex. The spermatic contents of the disk cavity (ca), which occupy the whole space about the proboscis, become denser, and more decidedly yellow. Here and there lasso-cells (l) are scattered through the outer wall, and seem to be fully developed; but we have not made any special investigation of their structure. The pedicellar portion (a b c) is about one half longer than the medusa, and the chymiferous cavity (c) has become very irregular in its outlines, on account of the highly increased development of the reddish-brown granules and cells, which line it as well as the proboscis (p). The two walls, the outer (a) and the inner (b), have the same thickness throughout, not only in the pedicel, but in the medusa, where the inner one forms the proboscis (p) and the outer one the disk (A). In the next stage (*Fig.* 18) we find that the pedicellar portion has nearly doubled its length, and that a second medusa (B) has begun to develop immediately below the first one (A), simply by a bulging and separation of the outer wall from the inner one (B p^2). This second medusa is separated from the primary one by a very short neck (c), no longer than the combined thickness of the outer and inner walls (c^1 c), which, at this point, are closely in contact with each other, the inner one (c^1) forming a partition, as it were, between the disk cavities (A ca, B ca) of the two medusæ. The primary medusa (A) has the form of a flattened sphere, of which the proboscis (p) forms the axis, and its spermatic contents (ca) are much denser than in the last phase, and of a dusky yellow color. The spermatic mass of the second medusa (B) is yellowish, like that in the last phase, and occupies a little less than two thirds of the transverse diameter of the disk, the axial portion (p), or, homologically, the proboscis, filling more than one third of the space. The terminal (c^1) and basal ends of this proboscidal axis, are expanded, so as to extend a short distance along the internal surface of the outer wall. Immediately below the secondary medusa (B) the pedicel (C) is slightly swollen, and in the act of forming a third medusa, as seen in *Fig.* 19, in which we have actually a third medusa (C) added to the group, and formed in the same way as the second, but as yet less advanced than the secondary medusa