Bougainvillia, though it is a little more slender, and has a more graceful aspect (Pl. XXVII. *Fig.* 10), on account of the greater length of its pedicels. It is also more strongly ringed throughout, and possesses eight or ten more tentacles, twenty-eight in all (*Fig.* 11), and tapering in form. The principal feature which distinguishes this hydra from that of Bougainvillia, is its long, simple proboscis (*Figs.* 10 and 11, *p*), in comparison with which the hydra of Bougainvillia (Pl. XXVII. *Fig.* 3) may be said to have none at all. The proboscis has all the flexibility and plasticity of that of the Campanularians, so often referred to by authors, and resembles it not only in form but also in the absence of tentacles around the oral apertures. The coronal tentacles agree also with those of the Campanularians in their occasional alternate depression and elevation. When the animal is in a quiescent state, the proboscis often assumes an elongate, pear-shaped form (*Figs.* 10, B C, and 11, *p*); but when searching for food it expands into the form of a trumpet (*Fig.* 13, *p*), with more or less dilated lips.

From May to September the heads are loaded with medusoid progeny (*Figs.* 10, 12, and 13, *md*), arranged in an irregular circle, just below, and parallel to, the tentacles. During this season this hydra may be distinguished from the very similar hydra of No. II., by its medusæ-buds, which are arranged in a moniliform series, attached to each other by twos or threes, end to end (*Figs.* 18 and 19, A B C), while No. II. produces single, scattered medusæ-buds. Unfortunately, we have never seen the medusæ with eggs; but, judging from the females of another species of this genus, figured by Dr. Wright in the Edinburgh New Philosophical Journal, Vol. IX. 1859, Pl. II. *Fig.* 2, *a*, and described at page 108, they are not moniliform but single. The structure of the medusa will be described in the next paragraph, along with its embryology.

Proles medusoidea (Pl. XXVII. *Figs.* 12–19).—Like all Hydro-medusæ, the budding embryo commences as a protrusion of the two walls of the body of the hydra (*Fig.* 14, *a b*), in the form of a hernia, into which the digestive cavity (*c*) projects. This continues to increase, until it has assumed a pear-shaped form (*Fig.* 15), and has a breadth equal to the thickness of the stem of the hydra (see *Fig.* 12, *md*). At this age the cells of the outer wall (*Fig.* 15, *a*), which in the hydra are so exceedingly indistinct, and barely recognizable in the initiatory state of the medusa (*Fig.* 14), are very conspicuous, and, in fact, are the first to attract the eye, by their beauty and remarkable appearance. They form a single layer, and have a polygonal outline when seen from the outer end; in profile, they have a broad and short, cylindrical shape, with rounded exterior ends. Each cell contains a few granules, which are grouped around its centre. The inner wall (*Fig.* 15, *b*), which is about twice as thick as the outer one, is lined by reddish, or, rather, pink granules. Soon after this date, the outer and inner wall