

ginous lamina which rises up the short peduncle, and forms a minute hollow firm centre. The margin of the oval expansion is somewhat thickened, and divided into eight equal arms, each furnished with a tuft of numerous short tentacula tipped with a gland, and brighter coloured than the body. The interior is hollowed like the blossom of a flower, the square extensible mouth projecting in the centre; and in the space between the arms there is a complicated structure composed apparently of two series of foliaceous processes arranged on each side of a white line that seems to spring from the sides of the mouth. These processes are formed by the complicated foldings of a thin membrane attached by one side in the manner of a mesentery; there are no vessels in the membrane, but some portions of it exhibit, when magnified, a kind of net-work of irregular cells, and the outer and free edge is bounded by a thread-like line. The white central line which divides them is formed of small roundish bodies arranged in two or three close series; and some of these ova can at times be traced along the margin of the circumference to the tentacula. The latter are cylindrical and terminated with a globular head, which is seemingly imperforate. The stomach is a loose thin plaited extensible bag, having attached to its inner surface numerous fili-form cæca, (Fig. c) that, after their removal from the body, retain their irritability for a long time, and writhe themselves like a knot of worms.—Dr Coldstream has favoured me with the following observations on the habits of this *Lucernaria*.—"I find the animal very hardy. It is constantly in a state of expansion, and does not contract excepting when very rudely handled. One specimen has lived with me for three weeks although the water has not been very often changed. When I first procured it, the two rows of spots running from the mouth along each arm were prominent, and of a dark reddish-brown colour. Since that time they have increased in size, and have become studded with numerous white oval bodies which I suppose to be ova. I see some of these have made their way into the web connecting the arms, but I have not observed any expelled from the body."—5th April 1833.

OBSERVATIONS.

The *Lucernariæ* are of a gelatinous consistence. The skin or corium is smooth and thickish. After covering and giving form to the body it is reflected over the oral disk, and encloses, within the duplicature formed by this reflection, the internal viscera. The body is more or less distinctly campanulate, and is prolonged inferiorly into a pedicle, very variable in length, which has its bottom conformed into a small sucker. From this point four ligaments, probably of a