

true glandular part and of a wider part, which acts probably as a receptaculum and opens into the fine pore.¹

3. The glands in the fourth joint of the legs of the males. These I observed in the following species:—*Nymphon hamatum*, *Nymphon brachyrhynchus*, *Ascorhynchus glaber*, *Colossendeis leptorhynchus*, *Colossendeis proboscidea*, *Colossendeis megalonyx*, *Oorhynchus aucklandiæ*, *Phoxichilidium insigne*, and *Pallene australiensis*. Whether or not they occur in the thighs of the males of all the species I dare not assert. I can only say that I did not find them in the thighs of the following species:—*Nymphon robustum*, *N. brevicaudatum*, *N. longicoxa*, *N. grossipes*, and *Colossendeis gracilis*. This may, however, be the consequence of these glandular masses being present only during a short period of the year—for example, only in the breeding season.

These are the glands which were observed by Dohrn. According to him (*loc. cit.*, p. 36) they occur only in the male sex, and are found in the fourth joint of the legs, viz., in those joints in which in the females the ovaries are most strongly developed. Dohrn, moreover, tells us that these glands are extremely variable in their appearance; while in *Ammonothea* they are furnished with a single duct only, in *Phoxichilus* there are fifteen smaller openings. Dohrn supposes that the function of these glands is to secrete a viscous fluid, wherewith the males agglutinate the eggs which have been laid by the females, and attach them to their ovigerous legs.

As to the function of these glands, I was unable to make any observations from the material preserved in spirits and brought home by H.M.S. Challenger. With regard to their structure the following may be stated:—The glands are always composed of a skeleton of connective tissue, the meshes of which are or are not filled with nucleated cells, which doubtless are the true glandular cells. When these glands have the meshes filled up with the nucleated cells (Pl. XVI. figs. 5 and 10), the 'skeleton of connective tissue is not easily discerned; while in those cases in which the meshes are empty (Pl. XVI. fig. 15) the structure of the connective tissue is easily observed. In the form of the glandular cells small differences were also observed. In *Ascorhynchus glaber*, they are fusiform and pointed at both extremities; in *Nymphon hamatum*, they are rounded, but in both cases distinct nuclei are present. A considerable difference, moreover, is seen in the greater or less degree of concentration which the glandular masses had undergone. In *Nymphon hamatum* and in *Ascorhynchus glaber* the gland in the fourth joint (which, however, in the latter species is also present in the fifth joint of the leg) forms only a single mass, which runs through the whole joint and opens at the one side in a row of pores, each of which is placed at the tip of a chimney-like process. As seen in fig. 6, the gland in *Nymphon hamatum* almost extends on the one side of the leg, between the intestinal cæcum and the

¹ These glands are also observed by Dohrn; he calls them "ein zweites noch grösseres Excretions- (oder Drüsen-) Organ (*Ibid.*).