171. Note on the Silk-gland of *Phassus signifer* Walker.

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In the larva of the swift-moth, *Phassus signifer* Walker, each of the two sericteria, or vessels that secrete silk, exhibits a swollen and flattened portion in the region of the posterior two thoracic segments, just before uniting to form a common duct (Fig. 1, g). There is no trace of such grape-shaped glands as have been demonstrated by LYONET¹⁾ in the *Cossus*-larva and by FILIPPI²⁾ in the silkworm. This

- Fig. 1. Silk-glands showing their swollen and flattened portions.
 Fig. 2. Swollen portion of sericterium showing the arrangement of cells.
 Fig. 3. Ditto, showing ramified nuclei.
 Fig. 4. Transverse section through the middle of swollen portion.
 Fig. 5. Transverse section through the hind part of the same.
 d duct, g swollen portion of silk-gland, n nucleus.

1) LYONET, p. *Traité anatomique de la Chenille qui ronge le Bois de Saule*. 1875.
 2) FILIPPI, F. de. *Alcune osservazioni anatomico-fisiologiche sugli Insetti in generale et in particolare sul Bombyce del gelso*. Ann. della R. Acad. agric. Torino, T. 5 (1850), 52-53.

swollen portion is of very simple structure, being constructed on the same plan with the general part of the sericterium (Fig. 2). A small trachea accompanies each organ, and supplies it with oxygen, by ramification over its outer surface. The organ consists of cells, of somewhat irregular polygonal form, bounding a narrow central lumen or canal. In transverse sections only two cells are met with, as is shown in Figs. 4 and 5. Just interior to the cellular wall comes a fine chitinous lining or intima. The cells are large, with considerably ramified nuclei (Figs. 3, 4 and 5, n). The cytoplasm is a little thicker in the outer than in the inner region.

Beyond doubt the organ in question is glandular in character, but its secretory substance is not silky, judging from its staining reaction. To me it appears that the organ corresponds to the above mentioned grape-shaped gland, which is known as LYONET's or FILIPPI's gland. It may, I think, be advisable to regard the swift-moth as one of the most primitive of the Lepidoptera.