

The xii and xiii segments are always greatly modified and intimately connected with the sexual system. The chitinous covering of the xii segment is much thicker than in the preceding ones, and forms a closed ring about the body. In the lowest families (Micropteryginæ) this ring is of equal breadth all round, but in the majority of the remaining families the dorsal portion is much more broadly developed than the ventral and lateral portions, the whole bearing a striking resemblance to a signet ring. In many cases, examples of which can be found in every group with the exception of the Rhopalocera, a lateral joint is present, dividing the ring into a ventral and dorsal portion.

To the median ventral portion of the wing is attached the *Saccus*, a secondary invagination of the intersegmental membrane, which projects as a strongly chitinized pocket more or less deeply into the abdomen. In several species of *Bombycidae* considerable modification of the *Saccus* has taken place, leading in extreme cases to the formation of a large chitinous sac beneath the sexual organs (*Bombyx rubi*). In but few instances is the *Saccus* completely lacking.

The conical anal segment (xiii) is scarcely visible in the majority of cases in the fully developed organ. The *Uncus* and *Scaphium*, which

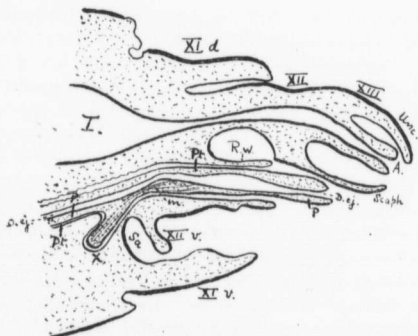


FIG. 9.—Median section through anal portion of pupa of *Parapovynx stratiotaria* in advanced stage of development (according to Zander). 40:1. I., Intestine; A., Anus; d., Dorsal plate; v., Ventral plate; D. ej., Ductus ejaculatorius; m., Musc. retract.; Duct. ejac., Duct. ejac.; P., Penis; P. t., Penis pouch; R. W., Ringwall; Sa., Saccus; Scaph., Scaphium; Unc., Uncus; X, Blind pouch; XI-XIII, Segments.