(Meyer) (Fig. 1), and Speyer (1934) also refers to the rectum of mirid nymphs being inflated for use as an adhesive organ. Disagreeing with Speyer's interpretation, Kullenberg (1944: 457) (somewhat anthropomorphically) suggested that the rectum may become an adhesive structure only when nymphs learn to use it through experience; otherwise, the rectum is inflated only during defecation. It is interesting to note that Southwood and Leston (1959: 201) in their well-known book on British Heteroptera also discuss the mirid rectal organ and its function of holding a bug to a leaf or twig after it has been "suddenly jolted."

Leston (1979) observed a rectal organ in nymphs of the 3rd and 4th stage, in addition to the 5th or last stage. It should be noted that all nymphal stages possess such a structure. Beyer (1921) shows an eversible organ in the 1st-instar nymph of *Halticus bractatus* (Say). In addition, nymphs of all mirid subfamilies appear to have these structures; at least a similar structure is present in all subfamilies occurring in Pennsylvania (Fig. 2-6, 8-13), including the Isometopinae (Fig. 2). In the genus *Hyaliodes* Reuter the rectal organ is found at the tip of the so-called anal tube (Fig. 9). Knight (1943) erected the subfamily Hyaliodinae based primarily on the presence of this structure in adults. Akingbohungbe (1974) discovered that nymphs of several hyaliodine genera have a tail-like modification similar to the anal tube in adults, an observation that led him to support subfamily status of the Hyaliodinae. Adults of certain bryocorine genera may also possess a similar anal tube (see Schmitz 1969). This structure appears to be restricted to the

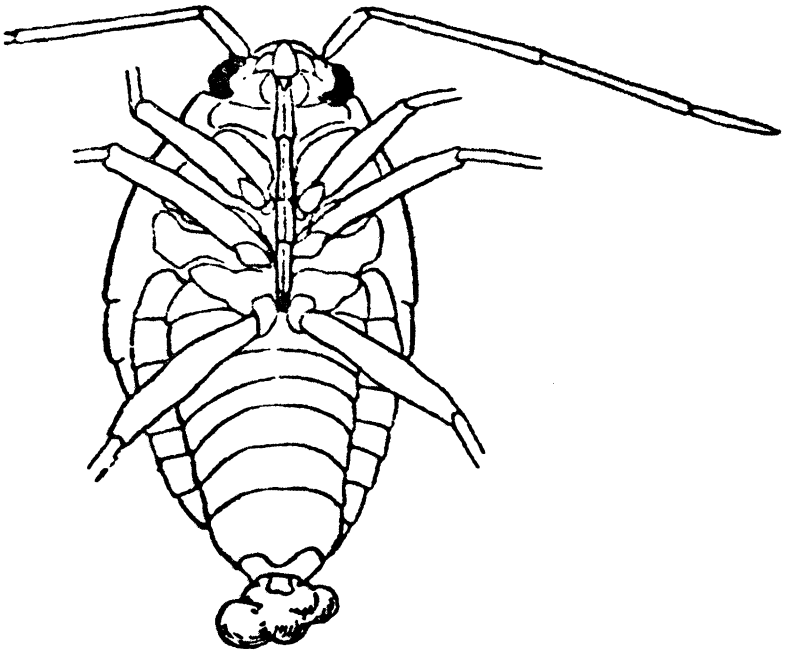

Fig. 1. Rectal organ ("Haftorgan") of *Lygocoris spinolae* (Meyer). From Fulmek, L. 1930. Z. Angew. Ent. 17: 78.