Matsuda (1965) reported that the prementum can be identified by the insertion of an extrinsic muscle on its proximal margin, and that in the higher Hymenoptera the prementum is often large. Using this definition, that area traditionally called the mentum becomes the prementum, and this designation is preferred here (fig. 9). The insertion of the extrinsic muscle (the labial abductor) has been figured by Janet (1905). The smaller sclerite traditionally called the submentum is arbitrarily referred to in the investigation as the postmentum (figs. 9, 10).

The prementum in ants is sclerotized on its ventral surface, forming a shieldlike plate, the *premental shield* (fig. 9). Sclerotization of this area varies in intensity throughout the ants. The prementum is usually provided with several long setae. The postmentum varies in shape but is most commonly triangular or U-shaped (fig. 10). The membranous dorsal surface of the prementum represents the hypopharynx which has completely fused with it (fig. 9). This is unlike the condition in more generalized pterygote insects, in which the hypopharynx hangs like a tongue in the preoral cavity (Snodgrass, 1928). In the Hymenoptera this hypopharyngeal lobe has been lost, and the salivary orifice serves as a marker for separating the hypopharyngeal region from the premental area of the labium. The duct of the salivary gland opens beneath the distal end of the hypopharynx (Matsuda, 1965).

The hypopharynx together with the epipharynx, a membranous wall beneath the labrum and clypeus, form a preoral food chamber — the cibarium, although in the ants this is not a clearly defined cavity. The hypopharynx and epipharynx have been discussed in detail by Bugnion (1925), who revealed his dismay at Savigny's (1816) original selection of these terms. They indicate that the structures are located above and below the pharynx, whereas in fact they are associated with the preoral cavity. Because of confusion surrounding the use of the term hypopharynx, Bugnion suggested that the term be abandoned. Bugnion (1924, 1925, 1930) has designated the shallow channel formed on the dorsal surface of the labium (actually the hypopharynx) as the labial groove (*gouttière labiale*) (figs. 11, 12).

A curved sclerite on each side of the labium at its proximal border acts to support the general structure of the labial-hypopharyngeal complex. These sclerites are inserted on the proximal lateral angles of the premental shield, pass dorsad along the side of the labium, then angle anteriorly and supposedly terminate in a rounded or triangulate expansion. The supporting sclerites have been called the "*baguettes de Huxley*" by Bugnion (1925), after Thomas Huxley who originally described these structures in *Bombus* (1878). Bugnion offered an alternative term for these, collectively calling them the epimentum. This term is preferred in this investigation, but has been modified to call these structures the *epimental sclerites* (fig.