After this brief general survey of the parts of the alimentary canal, we shall proceed with the description of each detail, and at the same time give what is known of the rule each plays in the process of digestion. What is known, however, about digestion in the bee, or in any insect, for that matter, really amounts to nothing, but the views of various writers on the subject must be discussed briefly, in order to show how little has actually been demonstrated.

The pharynx lies in the anterior part of the head close behind the clypeus, extending from the mouth dorsally to above the antennæ, where it turns posteriorly and contracts into the much narower œsophagus. Attached to its walls are numerous suspensorial muscles, whose contraction must expand the pharyngeal cavity, while the latter may be contracted by the sheet of muscles surrounding its walls. In this way the pharynx is undoubtedly able to perform a sucking action, by means of which the liquid foods are taken into the mouth. Its lateral walls are strengthened by two long, chitinous rods, which arise from the median anterior plate in its floor. The anterior end of this plate is prolonged into two free, tapering lobes which hang down over the lower rim of the mouth. The plate, in the worker, and the basis of the rods are shown in ventral view, removed from the pharyngeal wall. Near where the rods join the plate are two long, chitinous pockets, opening above, which receive the ducts of the two large glands lying within the anterior part of the head. Between these two pockets is a transverse row of cells, which have been described by Bordas (1895) as the "sublingual glands," but this name is not appropriate in insects, for, while the gland in question may be suggestive of the sublingual salivary gland of vertebrates, it does not lie beneath the tongue or lingua of the bee. Although the pharyngeal plate lies upon the floor of the true mouth, it is not, as already explained, the equivalent of what is properly called the tongue, lingua, or hypopharynx in other insects—this organ being absent in most Hymenoptera. The only suggestion the group of cells the ventral or median ventral pharyngeal gland in distinction to the large lateral glands. The plate itself is shorter than the worker, and its anterior lobes are smaller. The lateral glands and their receptacula are entirely absent, but the median glands are much larger than those of the worker. Bordas says that each acinus of the latter glands in both the worker and the drone is provided with a fine, sinuous canaliculus, and that these tiny ducts open separately in two bundles on the lateral parts of the pharyngeal plate. The lateral glands are present in the queen, but are very small and rudimentary.

Especial interest attaches to the large lateral pharyngeal glands of the worker, because they are regarded by many as the source of the brood food and the so-called "royal jelly," which is fed to the larvæ and to the adult queens and drones by the workers. Each consists of a long coiled string of small ovate follicles attached to one median duct, and the two are intricately packed into the anterior and upper parts of the head. Each acinus consists of a solid mass of several small cells, which are penetrated by a large number of fine, chitinous ducts, arising in the neck of the acinus from the common ducts of the gland. These follicular ducts can be very clearly shown by treating a part of the gland with weak caustic potash, which dissolves the protoplasm of the cells and brings out the bunch of ductules very clearly.

The fact that these glands are entirely absent in the drone and at best rudimentary in the queen shows that they must in some way be connected with the special functions of the worker. Schiemenz (1883) and Cheshire (1886) have shown that