

not quite, perpendicular. The middle lobe of the face is at least twice as broad as the side lobes, a little dilated at the apex, somewhat prominent and truncate. The side lobes are sub-triangular and rather inconspicuous. The sides of the head are blunt and not margined. On each side of the upper surface of the head are three more or less conspicuous black points, rising above the pubescence, one at the posterior angle near the eye, one situated more inwardly, and in a line with the front of the eyes, and one near the inner angle of the base of the antenniferous tubercles (Pl. III. fig. 7). Under the microscope these spots are seen to be tubercles destitute of the pubescence which covers the rest of the head. The summit of each tubercle is concave with raised margins, and, situated within the rim and to one side, is a smaller tubercle, bearing a short hair (Pl. III. fig. 8). In two species (*wüllerstorffi* and *sericeus*) the apex of these tubercles is from .02 mm. to .022 mm. in diameter, and the length of the hair .06 mm. to .10 mm. On examining one of the tubercles from the inside of the head it appears to be hollow, with the base of the hair protruding (unless this is an optical illusion) for some way into the cavity. It is probable that these tubercles are organs of one of the senses, possibly that of sight. The situation of the posterior ones corresponds with that of the ocelli, with which the Hemiptera are frequently provided, but when these are present in the Heteroptera they are never more than two in number, and true insects in the adult condition have very rarely, if ever, more than three,<sup>1</sup> though there is reason to believe that the anterior ocellus when present really consists of two ocelli coalesced. This anterior pair would correspond to the middle pair in *Halobates*, and the anterior pair (in this genus) has disappeared in other insects (as has in some cases the middle pair, and in others all the pairs), though still existing in some groups of the Arthropoda. The nature of these tubercles seems to have been hitherto overlooked, and it is much to be desired that naturalists who have the opportunity should examine the structure in fresh specimens, and ascertain with what part (if any) of the nervous system they are connected.

*The Eyes* are large and prominent, situated at the hinder angles of the head, and extending for about one-third of their length behind it, resting on the sides of the thorax. The orbit, especially above and below, and in a less degree in front, is provided with several irregular series of long, strong hairs, curved at the tip, the hairs nearest the eye being the largest. Viewed from above, the eye is semi-circular in outline, with the inner edge slightly convex; viewed from the side it is roundly oval; viewed from below the outline is similar to that from above. The facets of the eye are hexagonal. In *wüllerstorffi* their diameter is about .035 mm.; in *sericeus* about .025 mm. The outer free periphery has (in two species) about 25 facets.

*The Antennæ* are attached to the inner anterior apex of conspicuous tubercles, which are situated on the side of the head between the eyes and the apex of the face. These

<sup>1</sup> Some Aphides are said to have six.