

The second section of the Homoptera is known as Dimera, or those with two jointed feet. In this section we find very much smaller insects with antennæ longer than the head and in the winged individuals four wings ordinarily all of the same membranous texture. There are only two genera Psyllidæ and Aphidæ. The Psyllidæ or Flea-lice are small insects found on leaves and in some species raising galls. Although several kinds are known to occur, almost every tree having its own species, very few have been described. They have rather long antennæ terminated by two slender bristles; the beak is short and triarticulate, and the eyes are lateral and prominent as in the Cicadæ. On the front of the face are three ocelli placed in a triangle, the posterior ones quite close to the eyes.

The larvæ and pupæ have the body very flat, and in some species as *Psylla celtidis-mamma*, Riley, live in galls. I exhibited at the last annual meeting of the Society in Montreal specimens of the galls and pupæ of this species, and Prof. Riley then kindly informed me of its proper name, and told me where the only printed description could be found, namely, in an article written by himself for Johnson's "New Universal Cyclopædia," under the head of "Galls." For the benefit of our members I reproduce this in full:—"The Flea-lice produce galls of various shapes and sizes on the stems and leaves of the Hackberry (*Celtis*). In life habits they differ from all the other gall insects, and agree with their nearest relatives, the Plant-lice, only in being the architects of their own galls. The egg, glued in spring to tender leaf or twig, soon hatches, and under the irritation caused by the young *Psylla* the gall soon embeds it. Within this gall the insect dwells till it has acquired the pupa state, which is generally by the time the leaves begin to turn and drop, then by means of certain, horny spines or thorns at the end of its body, this pupa works its way out of its prison, and once out soon gives forth the perfect fly. The galls made by these Flea-lice are generally woody. Most of them are yet undescribed. *P. celtidis grandis* (Riley, M.S.) makes on the leaf-stalks a large grayish yellow swelling, which is an exception in being polythalamous. The few cells it contains are more or less filled with a white flocculent matter secreted by the insect." The perfect insect of *P. celtidis-mamma* appears in September and passes the winter in the crevices of the rough bark of the hackberry on which it underwent its preparatory stages, and adjacent trees. On November 24th last, I collected several specimens in a torpid state. The males are about one-eighth of an inch in length, and the females about one-third larger. The wings are deflexed at the sides of the body, and the hemelytra, which are rounded at the tips, are traversed by three strong nerves (the costal, median, and sub-median), each divided but once and disposed as shown in Fig. 89, which is another species, but serves

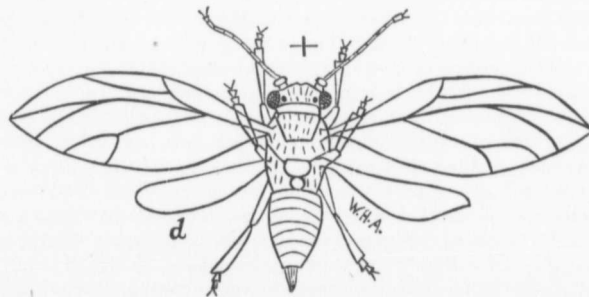


Fig. 89.

to show the general arrangement; the underwings are much more transparent and the nerves are very delicate. The colour is grey like the bark of the trees on which they are found; the antennæ which are terminated by two pairs of bristles are composed of ten joints, the eight basal ones yellow striped with black at their upper ends, and the two terminal ones entirely black. The femora are black for the greater part of their length,