

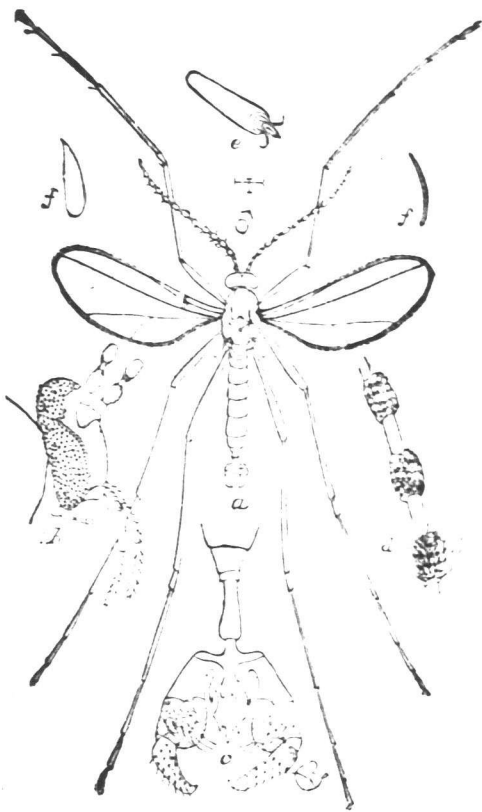
FERNDALE SCHOOL.

NO. XV.—THE CLOVER SEED MIDGE (*Cecidomyia leguminicola*, Lintner.)

TEACHER. What insect did we consider in our last lesson.

SCHOLARS. The Wheat Midge and the Hessian Fly.

T. To complete our lessons on the midges I take another one of them to-day—the third and last which we shall notice. This one does to the clover seed just what the Wheat Midge does to the wheat seed. The fly is so small that it could stand inside of a capital letter, such as an O, in this article. Here we have the male and female magnified very greatly so that all their parts can be distinctly seen.



THE MALE, magnified.

The sign $\times$ signifies the male insect and the crossed lines above its real size. It is very much of the size and appearance of the Wheat Midge. *a* shows the peculiar clasping organ at the end of the abdomen. *c* is the same still further magnified. *b* is the head still further magnified, showing the large compound eye, the base of the fifteen-jointed antennae, and the small four-jointed palpi or feelers. *d* a portion of the antennae highly magnified. *e* the claws at the end of the legs. *f* the dusky hairs on its wings and body highly magnified.

The sign $\times$ signifies the female insect, and the lines near it its actual size. The abdomen at *a* terminates in a long tube shown highly magnified at *c*, which is



THE FEMALE, magnified.

called the ovipositor, because it is the organ which places the egg in the minute flower of the clover. *b* is the head highly magnified, showing the lower joints of the sixteen or seventeen jointed antennae and the small four jointed palpi. *d* shows a portion of the antennae highly magnified.

S. When the fly is so small, I suppose one could hardly see the egg with the naked eye?

T. True, one hundred of them would make a line about an inch long.

S. When are they laid?

T. As it lives on the young clover seed when do you think?

S. When the clover blossoms.

T. Exactly. In May when the clover blossoms. In ten days they hatch into orange-colored footless maggots which feed upon the growing clover seed, and are about the twelfth part of an inch when full grown. Here we have it magnified at *a*, the small line by its side showing its real size. At *b* its head is shown still further magnified.

When it has eaten as much of the soft juicy growing seed as it wants it falls to the ground towards the



THE ORANGE-COLORED LARVA, magnified.

first of July, seeks cover, spins a minute silken cocoon, changes into the pupa, and after ten days in the chrysalis the perfect fly emerges ready to deposit its eggs in the second flowering crop of clover towards the latter part of July. The second brood may partly emerge in the fall and partly next May.

S. Does it do much harm?