

CHAPTER IV.

HEMIPTERA.

Chinch Bug.—Thrips.—Devastations and Remedies.

Under this head or order are classed the numerous family of Aphides and Bugs, which infest plants and commit great depredations. Of these, the *Chinch Bug* and *Thrips* are found to be hurtful to the wheat crop.

The *Chinch Bug*. The word bug is used by entomologists for various kinds of insects, all, like the bed-bugs, having the mouth provided with a slender beak, which, when not in use, is bent under the body, and lies upon the breast between the legs. Bugs have no jaws, but live by sucking the juices of animals and plants, which they obtain by piercing them with their beaks. Owing to the peculiar construction of the wing-covers of these insects, the hinder half of each being thin and filmy like the wings, while the fore part is opaque, the order is called *Hemiptera*, literally half wings. There are other insects having the same kind of beak, whose wing-covers are entirely transparent, and are yet classed under this order, because they so much resemble them in structure and habits. Bugs undergo three transformations, but retain nearly the same form in all their stages, the transformations consisting of a gradual development of wing-covers and wings, and increase in the size of their bodies.

Kerby and Spence in their Introduction to Entomology, mention the chinch bug in the following terms:—"America suffers also in its wheat and maize from the attack of an insect, which, for what reason I know not, is called the "chintz bug-fly." It appears to be apterous, and is said in scent and colour to resemble the bed-bug. They travel in immense columns from field to field, like locusts, destroying everything as they proceed, but their injuries are confined to the States south of the 40th degree of north latitude. From this account the depredator here noticed should belong to the tribe of *Geocorisæ*, Latreille; but it seems very difficult to conceive how an insect that lives by suction, and has no mandibles, could destroy these plants so totally."

This description of the chinch bugs is not quite correct. They are not confined to the States south of the 40th degree; for Harris found one in his own garden in Cambridge, Massachusetts, and also received specimens from Wisconsin and Illinois. He also ascertained that the chinch bug is the *Lygæus leucopterus*, or white-winged *Lygæus* described by Mr. Say. In its perfect State it is not apterous, but is provided with wings, and then measures about three-twentieths of an inch in length. It is readily distinguished by its white-wing covers, upon each of which there is a short central line, and a large marginal oval spot of a black colour. The rest of the body is black and downy, except the beak, the legs, the antennæ at base, and the hinder edge of the thorax, which are reddish yellow, and the fore part of the thorax which has a grayish lustre. The young and wingless individuals are at first bright red, changing with age to brown and black, and are always marked with a white band across the back. The eggs of the chinch bug are laid in the ground, in which they have been found in great abundance, at the depth of an inch or more. They make their appearance on wheat about the middle of June, and may be seen in their various stages of growth on all kinds of grain, on corn, and on herds grass, during the whole summer.*

The *Thrips* are such exceedingly minute insects, that to the naked eye they seem but as little specks, or rather like short lines, not exceeding the length and thickness of the letter i. In spring, these minute creatures may be found running about the petals of flowers, particularly the dandelion; but in summer

* Harris.