

para), which fly  
emales (Fig. C),



ies to the hop.

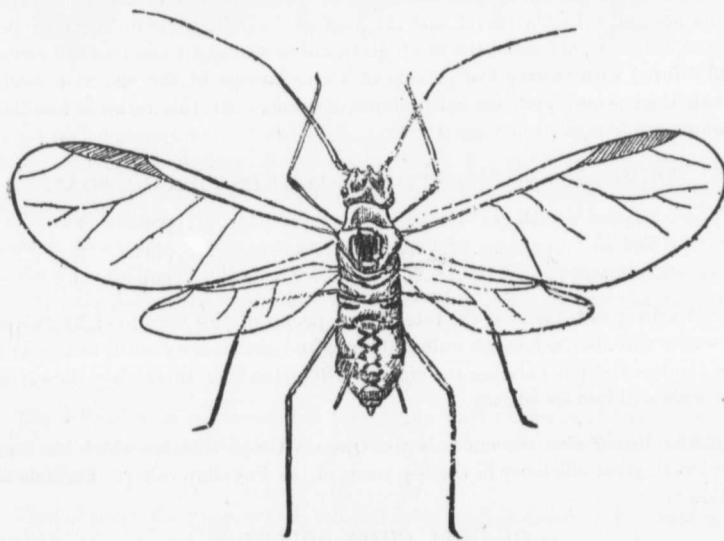
the time this  
according to  
males (Fig. D)  
females upon

Thus there  
the close of

the life round—the females wingless on plum trees; the males winged on hops. All intervening generations are composed of virgin females only (*parthenagenetic*). This is the invariable round of the insect's life.

#### REMEDIES.

From the life history just given, three important facts are obtained: (1). It will pay to make a preventive application of some of the mixtures mentioned further on, with apparatus before described, to all plum trees in the neighborhood of hop yards, either in the spring, before the appearance of the first winged generation and its consequent migration to hop, or in the fall after hop picking and after the lice have once more returned to the plum, and are making their preparations for the laying of winter eggs. The latter time will, perhaps, be preferable, for the reason that in the fall the plum trees will be less susceptible to the action of the washes, and a stronger solution can be applied without danger to the trees. (2). All wild plum trees in the woods through a hop-growing country should be destroyed. (3) The hop vines should be either burned or thoroughly drenched with kerosene emulsion as soon after the crop is harvested as possible, with a view of killing the males, and thus preventing the impregnation of the females. (4). If the above



(FIG. D).

The Hop Plant Louse, male—enlarged.

measures have been neglected and the lice have attacked the vines, the crop can still be protected by spraying with insecticide mixtures, which, if thoroughly applied will prove effective, and there will be no danger of reinfestation from neighboring untreated yards, since during the summer the lice cannot migrate except by crawling from one yard to another.