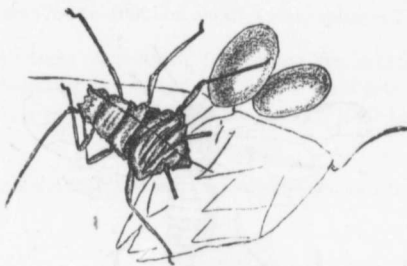


“Wherever it occurs, whether in England or on the continent of Europe, in New York, Wisconsin or on the Pacific coast, the Hop Plant Louse (*Phorodon humuli*) has substantially the same life-round. The eggs are laid in the fall on different varieties and species of the plum, both wild and cultivated. They are small, glossy, black, ovoid, and are attached to the terminal twigs, especially in the more or less protected crevices around the buds (Fig A).



(FIG A.)

Winter egg of the Hop Plant Louse and shrivelled skin of the sexual female which laid them—enlarged.

From an egg hatches in the spring, about the time when the plum buds begin to burst, a stout female plant louse, known as the stem-mother, which differs from the summer individuals, by having shorter legs and shorter honey tubes.

She gives birth, without the intervention of the male, to living young, and this method of propogation continues until the last generation of the season. The second generation grows to full size and gives birth to a third, which becomes winged (Fig B), and develops after the hops have made considerable growth in the yards. The winged lice then fly from the plums to the hops, deserting the plum tree entirely and settling upon the leaves of the hops, where they begin giving birth to another generation of wingless individuals. These multiply with astonishing rapidity. Each female is capable of producing on an average about one hundred young, at the rate of three per day, under favorable conditions. Each generation begins to breed about the eighth day after birth, so that the issue from a single individual runs up, in the course of a summer, to trillions. The issue from a single stem-mother may thus, under favorable circumstances, blight hundreds of acres in the course of two or three months. From five to twelve generations are produced in the course of the summer, carrying us in point of time to the hop-picking season. There then develops a generation of winged females (sexuparae), which fly back to the plum tree and give birth to the true sexual females (Fig. C).



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