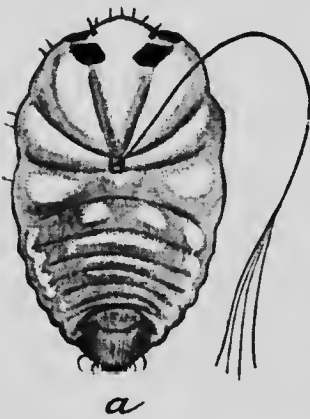


plums and apples, each scale produces a bright, reddish discoloration. If badly infested, the fruit, particularly of pears and apples, becomes much pitted, distorted in shape, cracked and unmarketable.

For the benefit of fruit inspectors in particular, it should be noted that reddish discolorations upon yellow fruits are not always caused by San Jose Scale. Upon yellow apples, and particularly upon peaches, very similar spots are produced by attacks of certain minute fungi. Hence, such spots should not in themselves be taken as proof of infestation by the scale. This can be determined definitely only by a careful examination, and the actual detection of the scale. The presence of such blotches may well arouse suspicion of the presence of San Jose Scale, and should challenge a careful examination alike by growers, buyers and inspector; so also should the presence of dead and shrivelled leaves upon the trees in mid-winter invite examination, for although their presence is not proof of the presence of the scale, it is evidence that the vitality of the tree has been seriously impaired by some cause, and in regions where San Jose Scale is prevalent that cause in a vast majority of instances is the scale.

Development of San Jose Scale.

On the approach of winter scales of various ages and sizes may be found upon infested trees. A very large proportion, especially of the immature scales, usually perishes during the winter, but at the present writing, March 10, practically all are still alive. We may expect, therefore, with normal conditions for the remainder of the season, to witness a very decided increase in scale infestation during the coming summer.



(FIG. 70.)



(FIG. 71.)



(FIG. 72.)

Development of male insect: (a.), ventral view of larva after first molt; (b), same after second molt (propupa stage); (c) and (d), true pupa, ventral and dorsal view, all greatly enlarged.

(L. O. Howard and C. L. Marlatt, Bulletin No. 3, New Series, Division of Entomology, U. S. Department of Agriculture.)

The male scales are not circular, but somewhat elongate. If one removes one of the large circular scales the little yellow object thereby revealed is a mature female. Under a moderate power of the microscope she proves to be