

position chosen. The secretions that they throw out soon fasten them securely to the bark.

I do not know any particular species under the name of "the orange louse of California." Our apple-tree bark louse closely resembles two species which infest the orange in Florida and other southern States, viz., *Mytilaspis Gloverii* or the long scale, and *M. citricola* or the purple scale, but I am not aware that these have as yet become California pests. Allied to these in California and proving destructive to the orange are the red scale (*Aspidiotus aurantii*), the white scale (*A. nerii*), and the ribbed scale (*Icerya purchasi*). For an interesting account of the spread and ravages of the last-named most destructive pest in California, and the methods there employed in fighting it, see the COUNTRY GENTLEMAN for Jan. 7, 1886, page 9.

Remedies.—If a tree has become so infested with the bark louse that it has extended over the entire tree, even occupying the smaller twigs, there are but two ways to deal with it, either cut the tree down and burn it, or treat it thoroughly with the kerosene oil emulsion, the method of making which has several times been given in the COUNTRY GENTLEMAN, and in other agricultural and entomological publications. This might be used at any time during the spring, or in the autumn after the gathering of the fruit. The oil will penetrate the scales and kill the insect or the egg within.

If the tree is small and the scale not generally distributed over it, the scales may be scraped off and gathered upon a sheet placed underneath, so that the eggs may be destroyed instead of being left on the ground to hatch and thence ascend the trunk.

If the scales are confined to the trunk and larger branches, the insects may be killed by hand without the aid of a force pump for spraying, by the use of a soft soap solution, provided that it be used at the proper time.

The time of all others when the insects are the most vulnerable, is when they have just hatched from the eggs and are exposed on the bark as soft, delicate, naked little creatures. This is usually late in May or the first of June, and will often be found to be contemporaneous with the opening of the apple blossoms.

Prof. Cook, who has had much experience with this pest, has told us just how he has successfully fought it at the Agricultural College at Lansing, Michigan. He states:

The old will surely again three over and over short time on know of no be sure, we go at it with pretty sure t

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J. M. PARI on the tree tha found beneficia