

bases of the buds must greatly lessen the vitality of the whole tree. When the mites occur as numerous as shown in the figures, they must prove a serious pest; and, with our present scanty knowledge of their life-history, they will prove a hard foe to combat. So far as we know, the mites are securely protected in their gall-homes during the whole year. Possibly there may be a few days, when they are leaving their galls to form new ones, that they could be hit with an insecticide. It is doubtful if kerosene emulsion will penetrate the galls, but it is worthy of a trial on a few trees during their dormant period; dilute the emulsion with only three or four parts of water, and make it by the Riley-Hubbard formula. The only other suggestion I can now make is to prune the trees as closely as possible, taking pains to cut out as many gall-bearing twigs as practicable, and to burn all prunings. As most of the galls are on the twigs, millions of the mites could be destroyed in this way.

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PARTIAL PREPARATORY STAGES OF SOME MOTHS.

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Catocala Minuta, Edw.

Full-grown larva.—Length about one inch. As in most *Catocala* larvæ, seven stripes, the dorsal gray, lilac tinted; the next blackish-gray, paler on the middle of the joints; the next about the same colour, but tinted with the reddish-orange that forms the broad bordering lines between the stripes; the next also blackish and below this dull orange. The bordering lines on the back whitish, distinct white on the folds; lateral fringe orange tinted. Piliferous spots orange, the posterior pair to each joint more prominent than the anterior pair; the anterior pairs on joints 6 to 8 paler. The posterior part of joint 9 elevated and white between the spots; back of the elevation, and reaching down to the legs, orange tinted black. Head dull lilac-gray, mottled with white, a blackish patch above on each side and in front two black spots on each side. Venter yellowish-white, with black patches in centre of joints.

Chrysalis.—Length, .65 inch; diameter of thorax, .23 inch; tongue- and wing-cases extending back to posterior part of 5, the tongue-case as far back as the wing-case; tapering back from 5; abdominal joints very shallowly punctured, the punctures scarcely perceptible with the lens;