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THE PLUM-TWIG GALL-MITE.

Phytoptus phloxcoptes, Nalepa.

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In January, 1895, I received from a fruit grower at Industry, Pa., several plum-twigs which were badly infested with what was to me a new pest. Two of these twigs are shown, natural size, on the accompanying plate. It will be seen that a ring of small, sub-spherical excrescences encircles the base of each bud and also the bases of two short shoots. The correspondent wrote that he had 400 trees badly infested, and a majority of the plum trees in his neighborhood were affected. The Damsons seem especially subject to attack, but all varieties suffer more or less.

The excrescences were then of a dark brown colour, with a slight reddish tinge. Usually a slit-like opening could be distinguished on the surface. Upon carefully cutting through one of the excrescences, I was surprised to find a cavity in the interior that was packed nearly full of very minute whitish creatures, which proved to be four-legged mites or Phytoptids. Thus, these excrescences were the galls formed by the mites, and in which they were then hibernating. There were hundreds of the mites in each gall and all of them in a dormant condition. Thus, each twig was harbouring thousands of the little creatures. The fleshy portion of the galls, between the cavity and the outer skin, is of a dark magenta colour. The galls vary in size, some of the larger ones containing two or three cavities.

But little is known of the life-history of this curious gall-mite. The correspondent writes that the mites also live in the galls during the growing season. They probably leave the galls in which they hibernate and form new galls in the summer. On several twigs I found a ring of old, dry, deserted galls below a ring of inhabited galls.

Having ascertained the nature of the pest, I ransacked the literature for records of similar attacks by gall-mites. In *Insect Life*, Vol. I., p. 343, is recorded some correspondence which Dr. Riley had in January,