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## POPULAR AND PRACTICAL ENTOMOLOGY.

### TWO APPLE LEAF MITES OF ECONOMIC IMPORTANCE.

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#### THE "SILVER-LEAF" OR "RUSTY-LEAF" MITE.

(*Phylloptes schlectendali* NALEPA.)

During the summers of 1912 and 1913, which the writer spent in British Columbia, he had an excellent opportunity for observing the work of the mite *Phylloptes schlectendali* Nalepa, this species being extraordinarily abundant in the Okanagan Valley and other parts of the Dry Belt.

It is most commonly found attacking the leaves of the apple, and though it cannot often be considered a serious enemy of the foliage, the result of its work is conspicuous and peculiar. The presence of the mite makes itself apparent by a decided silvery appearance of the leaves, which, in severe cases, is very pronounced and can be detected from a considerable distance. This appearance is due to the formation of an air space between the epiderm and the palisade cells due to the punctures of the mites. A tree so affected bears a striking resemblance to one attacked by the disease Silver-Leaf, said to be caused by a fungus (*Stereum purpureum* Pers.)

This is not the only case in which a silvery appearance is brought about by the work of mites. On plums, bad infestations of Red Spider (*Tetranychus bimaculatus*) produce a somewhat similar appearance, though not so characteristic, and mites feeding upon elm leaves have been observed to produce similar symptoms. It was first thought that all such trees were suffering from Silver-Leaf, which is not surprising, since both these troubles are very abundant in British Columbia and are often present on the same tree. It was only, however, when trees that had been sprayed with nicotine sulphate did not develop the disease that this diag-