



FIG. 2257. PEACH CURL, UNTREATED LEAF.

1900, and was largely instrumental in giving rise to the belief that spraying was of no value as a remedial treatment. According to this view, the threads of the fungus in the spring extended into the leaves of the young shoots, and there formed a net-work of threads which finally caused malformation and death of the leaves. If this view be the correct one, it is manifestly of little or no value to spray, for the fungal threads are within the plant and beyond the influence of the Bordeaux.

Frequently, however, reports were received from reliable experimenters that the Bordeaux mixture did exert a controlling influence on the disease. Messrs. Craig, Orr and A. H. Pettit obtained satisfactory results in Ontario in 1897, 1898 and 1899, while Prof. Bailey, Dr. Duggar and Dr. Murrill reported excellent results in New York. Other instances might also be given, but these are sufficient to show that probably the disease was prevented from spreading to the leaves because the spores did not have an opportunity to germinate.

Newton D. Pierce, of the Department of Agriculture, Washington, D.C., began the investigation of the Peach-Curl problem as far back as 1893, and carried on an elabor-

ate series of experiments in co-operation with peach growers in many of the states. His results were very conclusive as to the value of Bordeaux mixture as a remedial treatment, and he does not hesitate to state that the disease can be efficiently controlled by early spraying.

Mr. Pierce is of the decided opinion that the main source of infection of the leaves in spring is the spores, which find their way to the leaf buds, for over 90 per cent. of the infections can be prevented by a single spraying. Success depends upon an early application of the Bordeaux. The first spraying should be done in April when the buds are beginning to swell, or from one to three weeks before the opening of the blossoms in the spring. If much wet weather follows, another spraying should be made after the blossoming period.

The writer is quite aware that many orchardmen may be quite skeptical in this matter of Peach-Curl control, but facts are accumulating so rapidly that there should be but little doubt that Bordeaux mixture, applied at the proper time, applied in the proper way, after being properly made, will control the Peach Leaf-Curl.

The peach industry is a large one, and



FIG. 2258. PEACH CURL, TREATED LEAF.