

in diameter, mostly on the north side of the trees." One specimen of apple wood cut from a branch two inches in diameter and apparently in a living condition, produced, as well as the pear-blight beetle, several specimens of *Monarthrum mali*, another injurious species somewhat resembling the above, but even smaller. A noticeable feature of every specimen of injured wood submitted to me was that the trees from which they were cut were very badly attacked by the "Oyster-shell bark louse." Opinions seem to differ as to whether these beetles will attack vigorous, healthy trees. Efforts will be made to induce the Nova Scotia fruit growers to treat their trees for the "Oyster-shell bark louse," which alone, without the assistance of these borers, are sufficient to rob the trees of much power for bearing fruit. Last spring I was much pleased at receiving from Mr. A. J. Hill, of New Westminster, B.C., some twigs of apple covered with this bark louse, which, when enclosed in a breeding jar, produced hundreds of the useful little parasite *Aphelinus aspidiotidia*. Every scale seemed to be destroyed. After saving a few specimens for the cabinet I turned the others loose in an infested apple tree, and hope next year to find that they are established here. In our own Province by far the worst enemy the orchardist has had to contend with is the codling worm (*Carpocapsa pomonella*.) There is now no doubt that the use of arsenical poisons is the only practicable remedy for this pest. I refer to it now for a special reason. In the *Canadian Horticulturist* for August appeared what I cannot but consider a most injurious and ill-advised article. In it the writer, who, by the way, does not give his name, writers of such articles seldom do, makes several bare statements without giving any proof, warning fruit growers against using arsenic in any form, and draws a vivid picture of the ills which may come from neglecting his advice. This article will be answered in full elsewhere; but I wish to draw attention to two of his statements, viz.:

"That although the mineral arsenic is insoluble in water it is freely soluble in the acids resulting from decomposition of vegetable matter—and is then readily taken up by the roots of plants, especially by those of the coarser vegetables, as the potato, etc."

"Similarly also, in applying solutions of Paris Green to the apple blossom, it is not only that the petals are destroyed, but the poison may be absorbed by the fruit—"

Now the injury of this article is this: In the first place the statements are inaccurate and secondly being published where it is, it will be read by a large class of people who will not be able to detect the inaccuracy, and who sooner than run any risk will let their crops be destroyed so as to be on the safe side, and besides this there is no doubt that it is less trouble not to make this application, and we all know how easy it is to take a ready-made excuse for not doing a thing which we know ought to be done; but if there is the slightest doubt about the propriety of an action we seldom even need an excuse to be prepared for us. Now, Entomologists have been for years trying to persuade fruit growers to save their apples and plums by using these arsenical poisons, and Prof. Forbes has shown by most careful experiments, that at least 75% more of a crop can be preserved by their use than by leaving the trees alone. Fruit growers were just beginning to be awakened to the value of these remedies when "O." (of Durham, Ont.), comes out with his injurious article. In answer to it I say—if care be taken to apply this remedy as directed by Entomologists no danger can result from its use. As to its being absorbed into the potato tubers, "O." seems to forget that these bodies are not roots, nor are they filled from the roots. They are merely swellings at the ends of underground stems, such as are known to botanists as "winter-buds," and are reservoirs for the storing up of reserve material chiefly taken in by the foliage for the use of the next year's growth. Even then were it possible for any appreciable amount of the arsenic to get to the roots and be absorbed by them, which I very much doubt, it would be impossible for it to get into the tubers. Prof. Cook, of the Michigan Agricultural College, had some very careful analyses made of plants specially treated with arsenic. Paris green was put on the foliage as strong as possible without killing the plants, and it was also put on the ground where it would be worked to the roots. Both vines and

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