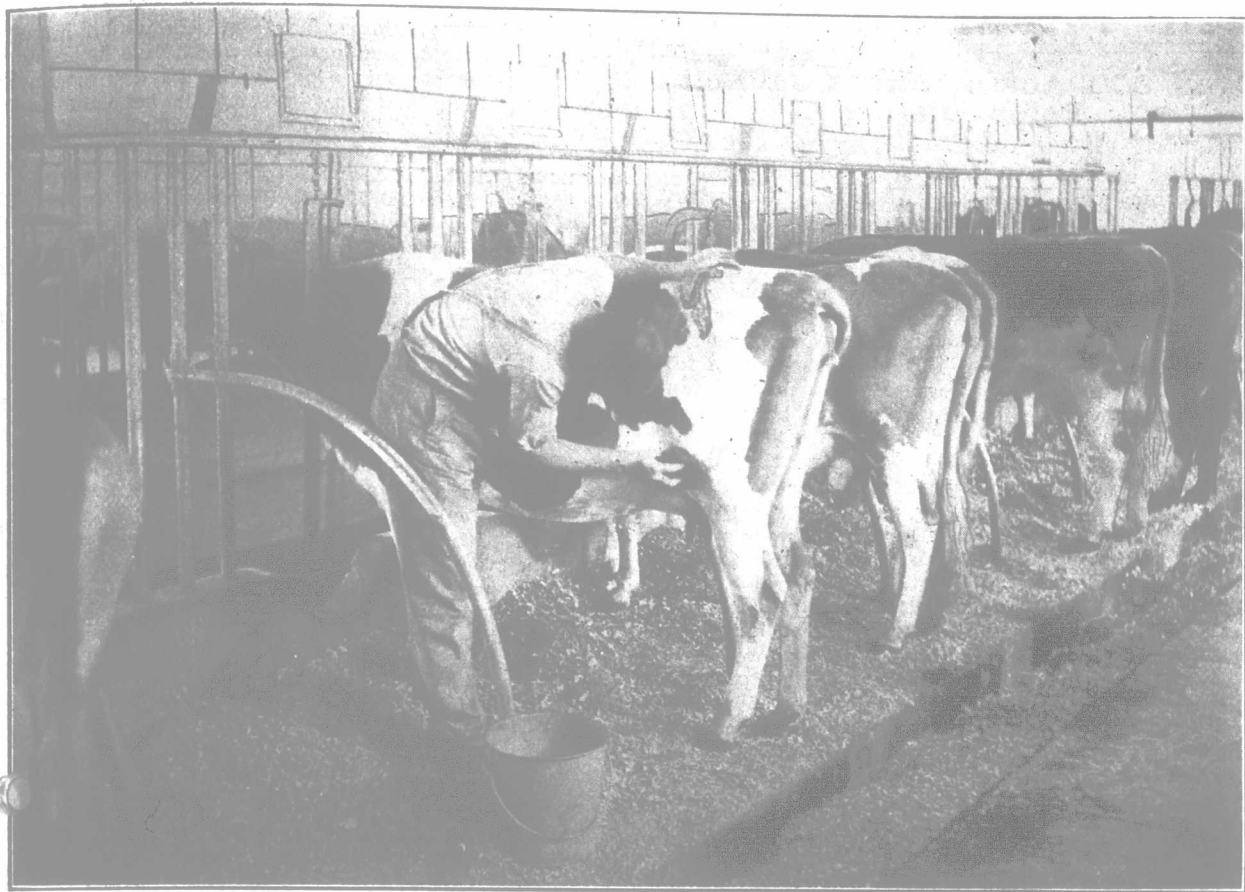




Washing the Cows.

This operation is performed before every milking.

GARDEN & ORCHARD.

Romance of Spraying.

By Peter McArthur.

Everything that has been done in the orchard has been wonderfully interesting, but the third spraying was a revelation. When Mr. Clement began "squirting Death through a hose" at the blossoms, I regarded the operation as part of the ordinary routine, and little suspected that back of the work lay one of those romances of science that are lost in common-place reports, instead of glowing on the pages of a poet. As usual, a chance question brought out the wonderful fact that kindled my imagination about a teacher who had asked the nature student to bring to school a specimen of the codling moth, and how, when I tried to help him, and looked up the literature on the subject, I found that the codling moth flies by night, and that many experienced orchardists have never seen one. Then I asked if it would be possible to capture a codling moth at this time of the year.

"No. They do not begin to lay their eggs until about the end of June."

Instantly I became a living interrogation mark, and during the next few minutes learned a story that illustrates better than anything I have yet found the patient work that is being done by our scientists, and the wonderful skill with which they adapt their methods to the processes of nature in order to accomplish results. Here is a case where they meet Nature on her own ground, and conquer her with a subtlety equal to her own. It is a triumph of science that should be observed by Faber, and described by Maeterlinck. Having studied out the processes of an apple's development and the codling worm's method of attack, they prepare a death-trap for an insect that is as yet unborn. While the calyx of the blossom is open, they saturate it with a spray of arsenate of lead. As the young apple develops, the calyx closes and folds within itself the charge of poison where it cannot be washed out by the rain. Weeks later the young codling worm is hatched from the egg deposited on some near-by twig by the moth, and, obeying a compelling instinct, crawls up the stem of the little apple, makes its way to the calyx, and begins to eat its way into the fruit. Then it meets with the lurking death that has been placed in its path by the ingenuity of man. Could anything be more skillful or more carefully thought out? The orchardist makes Nature herself "commend the ingredients of the poisoned chalice" to the lips of her destroying creatures. Here is something that surpasses the craft of the poisoners of the Dark Ages. It is fabled that they could administer their death-dealing "Aqua Tofana" in the perfume of a rose, and that Caesar Borgia could destroy an enemy by poisoning one side of a knife, dividing a peach with it, and then eating his own half with relish, while his unsuspecting guest took certain death from the other. But the Borgias, de Medicis and Brinvilliers were clumsy poisoners when compared

with the scientists who protect the bounties of Nature from the ravages of her prodigal hordes. Poisoning the blossom for the unborn insect that would prey on the fruit is surely the masterpiece of protective sciences. In my excitement, I forgot to ask if it is known who devised this plan, but probably it was developed bit by bit, scientist after scientist adding his portion, until the scheme was perfect. This marvel is now one of the commonplaces of farm work. I wonder how many more stories just like it are back of the methods and formulas by which man is slowly learning to control the forces of nature for his profit.

The orchard is right up to date. It has been given its three sprayings, and has been fertilized and plowed. Of course, I have never watched an orchard closely until now, but those who should know assure me that there has never been such a showing for apples as there is this year. The little apples are now formed, and it is easy to find trees on which four and five blossoms out of each cluster of six have been fertilized. If even a small percentage of the apples that are already formed reach maturity, practically every tree in the orchard will be loaded. In fact, it has been suggested that there are so many apples, the fruit

will be small, unless it is thinned out later in the season. If the insects that prey on the young fruit only worked with discretion, they might be helpful in thinning it out. I wonder if the scientists cannot find some way of training the larvæ that feed on the blossoms to take only a just proportion of them. Nature provides enough for them and for man, if they could only work in unison. But I am afraid that the war of extermination must go on, for I doubt if they can do anything along this line, even though they are so wonderfully skillful.

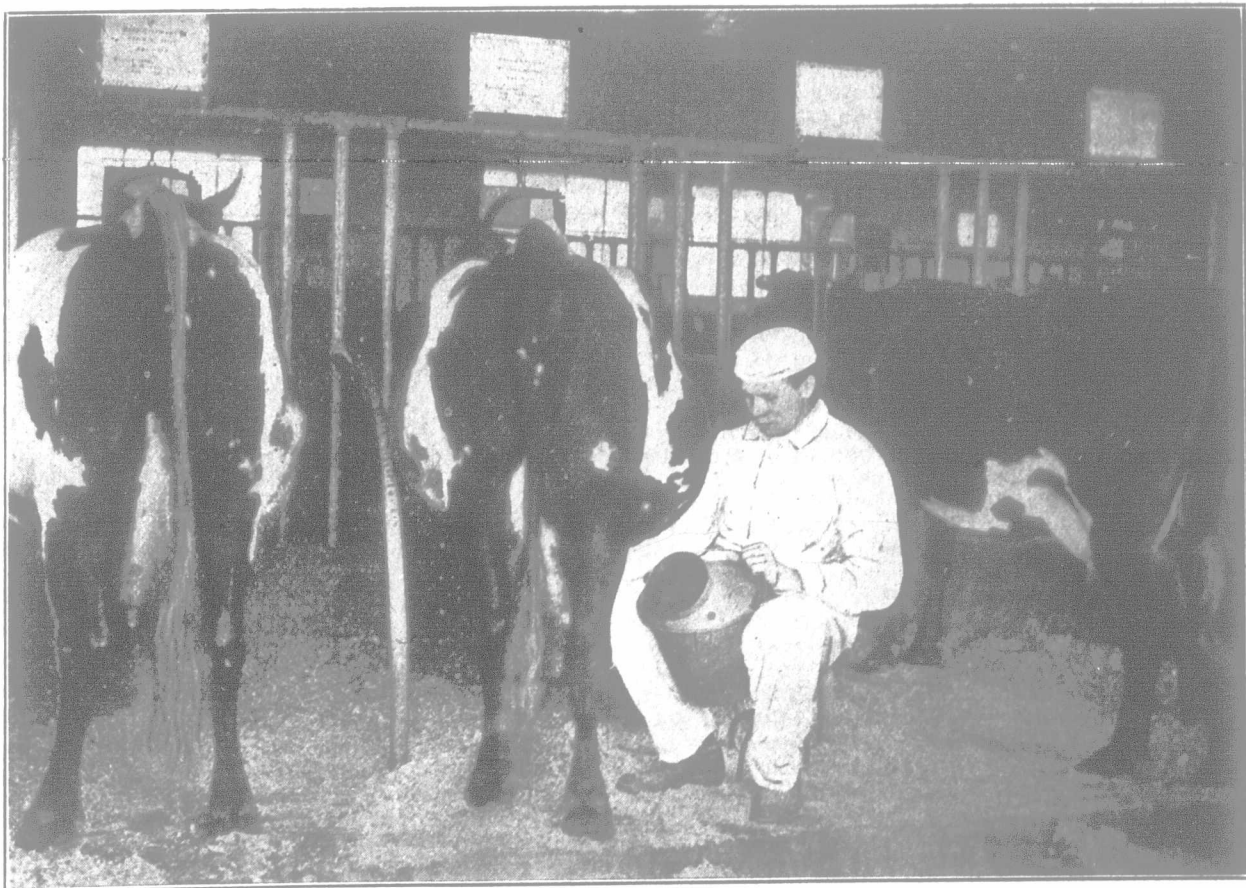
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A couple of days ago a sharp-eyed boy found something on the apple trees to which he called my attention. There were little clusters of eggs on the under side of the branches—little yellow things about the size of pin-points. I am so anxious to find out what they are that I am going to clip off a few pieces of bark, put them in a pill-box, and send them over to Mr. Clement. But perhaps, instead of being the eggs of some injurious insect, they may be the eggs of something useful. I wonder if I should take all the eggs when sending them, or should I leave a nest-egg? In doing these scientific things, the ordinary man is always afraid he may not be right. But as the eggs seem fairly plentiful, I guess I can risk it. Anyway, I want to find out all about everything that is happening to those trees.

* * *

This has been a great year for gardening. Although it has been a late spring, we are already having plenty of lettuce, radishes and young onions, and the work needed to make a garden was not missed. One thing that interests me is to find that the cabbage, cauliflower and tomato plants I am getting from seeds sown in the open are growing so rapidly that they promise to do better than the hothouse plants that were put out for an early crop. Apparently, there is little to be gained by forcing plants for ordinary gardening, though it may be useful in market gardening when every day counts in getting the high prices at the beginning of the season. We have over thirty varieties of vegetables in the garden this year, ranging from the bulky squash to the small, savory herbs, and, when vegetarians call to see us this summer we will always be ready to give them a dinner fit for a cow—I mean a king.

I wish the frost would not keep sneaking and snooping around as it is doing this year. After each rain we have a cool spell, and sometimes the thermometer gets perilously close to the danger-point. At such times people try to cheer me up by telling about other years they remember when a summer frost killed everything. The last time the fruit was all killed by the frost, the damage was done on the fourteenth of June. Just as I was thinking that if we got past that date safely, someone came along and told about a summer long ago when there was frost in every month of the year. People seem to have a great memory for misfortunes of this kind. The bad luck that they have suffered seems to become traditional, while the good luck is usually forgotten. Of course, I am not worrying enough to injure my health, but



Ready to Milk.

Note the clean white suit and the type of pail used.