



VOL. XI. No. XIX.
(NEW SERIES)

TORONTO, CANADA, OCTOBER 1, 1874.

\$1.50 PER ANNUM.
SINGLE COPIES 3 CTS.

The Field.

Fighting the Devil with Fire.

The above heading, when interpreted, means, dosing the potato-beetle with Paris green. We have never been in favor of this, and have never practised it. During the panic, for such it has been, created by the appearance of this insect pest, heralded by the terrible accounts of its devastating march over the Western prairies, it was well nigh useless to argue against the use of this virulent poison; but now that we have had the visitation three successive years, and have managed to survive, and also grow some potatoes, perhaps a few words of remonstrance may stand a chance of being patiently read.

One strong argument in opposition to the use of this poisonous application, is that it can be done without. We have dispensed with it, and have had as good potatoes as our neighbors. So have many others. Of course, our expedient has been hand-picking. Very tedious and costly, it is objected. Not so very, after all. An intelligent farmer, in the state of New York, who has carefully experimented on it these three seasons past, says hand-picking can be done for three dollars an acre. Take the cost of Paris green, and the value of the time it requires to put it on, and how much do you save by the use of it?

The fact that the substance is a virulent poison should deter from its use unless absolutely necessary. It requires the greatest care in handling, so as not to get into the throat and nostrils of the operator. It is by no means certain that it does not affect the plant and tuber. Entomologists have denied that it does them harm, but we are not convinced, and refuse to be until some satisfactory experience prove that those who take this ground are right. Florists know quite well how readily coloring matter is taken up by plants, and some of the most brilliant and charming effects have been produced in this way. Some cases of severe diarrhoea, we have known attributed to eating early potatoes, may very likely have been at least partially caused by the application in question. In one neighborhood that we could mention, about a score of cows have died the present summer. A post mortem examination of some of them showed the presence in their stomachs of Paris green in sufficient quantity to cause death. They were cows that ran on the commons, and they obtained the Paris green either by eating grass in the vicinage of potato patches that had been dosed with it, the wind having spread it outside, or by eating potato tops thrown over the fences out of plots where the poison had been used.

A third consideration against this practice is, that it thwarts the very means to which we are warranted in looking for ultimate deliverance from this pest. Prof. Riley, and other eminent entomologists tell us,

that already twelve or thirteen insect enemies of the potato beetle have been discovered preying upon it, and it is to the multiplication of these, and the vigorous prosecution of their mission, that we must look for the extermination of the nuisance. But Paris green is as fatal to our friends as to our enemies. It is like a double-back-action-gun on the battle field—it kills our allies as well as our invaders.

The advice is usually given to plant very early to avoid the worst ravages of the beetle. But a correspondent of the *Country Gentleman*, who advocates hand-picking, says he shall plant none but early varieties hereafter, such as the Early Rose and Peerless, and plant them late. He thinks the early potato crop only provides rich pasturage for the beetle, facilitating their increase, and helping their depredations. Whether potatoes are planted early or late, cultivators cannot be too prompt in watching for the appearance of the beetle, so as to destroy them, and with them their progeny for the season.

Threshing and Stacking Wheat.

Mr. Joseph Harris contributes the following lively and instructive article on the above subject to the *American Agriculturist* for September:

We are now (July 23) threshing our wheat—drawing it in from the field as we thresh. I am the only man in this neighborhood who adopts this practice. Come and see how it works. After the wheat is cut, and the sheaves put into stooks, we rake the ground carefully between the rows of stooks, going over the ground twice in opposite directions. Before commencing to thresh, we load up all the rakings. When these are threshed, all is plain sailing. We have three waggons and two teams; as soon as a waggon is unloaded, it is pushed out of the way by hand, and the next load is driven up. The man who has just unloaded the previous waggon, takes off the team and puts it on to the empty waggon, and goes to the field for another load. He reaches the pitcher just as he has finished the third load, and the work is fairly commenced. There is one waggon at the machine, another going back or forth, and another being loaded in the field. Where this kind of work is new to the men, it will be likely to dissipate some of their old traditions. They will find that a machine does not thresh as fast as they have hitherto supposed. Two of my best men jumped on to the waggon to throw the sheaves to the machine. I had a man to spare for half an hour, so I did nothing. It is one of the old notions that it takes two, three or four men to "get the grain to the machine" from the stack or bay. "One man can't get it us as fast we want it," said the threshers. "Perhaps not," I replied, "but at any rate one man can throw the sheaves off the waggon as fast as the man in the field can pitch them on to the waggon." "We want three good men on the straw stack." This is another traditional notion. One man is pitching on to a waggon all the grain and straw that is going through that machine.

But wait. They have just finished a load, and the threshers see we are talking about them, and are doing their best. Let us see how long it takes to thresh the next load. How long? Fourteen minutes, and there was 15 bushels in the load. That

will do. Now then, about stacking the straw. With a fair crop of wheat like this, that will go say 30 bushels per acre, there is about 100 lbs. of straw to each bushel of grain. That load we have just threshed, therefore, weighed 2,400 lbs. The machine takes out 900 lbs. of grain, and 1,500 lbs. of straw is elevated by the straw carrier on to the stack. Now, if one man can pitch 2,400 lbs. on to a waggon, at an average height of 9 feet, why are three stout men required to handle 1,500 lbs. in the same time on the level? "You get on to the stack and try it," says the Deacon, "and you will find out." I have been there a great many times. The labor consists, not in moving the straw, but in moving yourself about the stack. And the way to lessen the labor is to make large forkfuls. An average forkful of straw, say as large as a two-bushel basket, does not weigh more than 8 lbs. As men usually build a stack, they walk around the outside more than in the centre, while the centre ought to be kept full and trodden solid, so that, as the stack settles, the inside or roof shall not settle as much as the outside. To do this, as well as to lessen the labor, you should, in building the outside layers of the stack, take pains to get the largest forkfuls of straw, and not waste your strength in placing a thin layer of straw around the outside of the stack. It is like carrying water in a two-quart pail. You move 150 lbs. of your own weight to move 4 lbs. of water.

Every year before commencing to thresh, the question arises "how long and how wide shall we make the stack bottom?" This year we made it 36 feet long and 20 feet wide. The machine stands about three feet higher than the bottom of the stack. After we had threshed 402 bushels of wheat, the stack was 24 feet high, with an average width of 25 feet, and an average length of 35 feet. The stack, therefore, contains 2,800 cubic feet. And if we calculate that each bushel of wheat gives us 100 lbs of straw, there are 20 tons of straw in the stack. This is not far from my old rule of calculating, that each ton of straw requires about 1,000 cubic feet of space. "But you won't leave your stack without topping it off," remarks the Deacon. No, I have got about 8 tons more straw to put on top; and it has got to go up there whether it will or not. By Monday morning the stack will have settled at least four feet, and I propose to carry the walls up four feet higher than they are now. Then by making a good steep roof, it will hold it all, and we shall have 28 tons of straw in a stack, the bottom of which is 36 feet long and 20 feet wide. It is of course more labor to top off a high stack, but there is a great advantage in getting as much straw as possible under one roof.

An English Prize Farm.

The Royal Agricultural Society, which held its annual show at Bedford in July, offered among its premiums a prize of a fifty-guinea cup and fifty sovereigns for the best-managed farm, and another of fifty sovereigns for the second-best farm. Descriptions of these farms are published in our English exchanges, and we copy from the *Agricultural Gazette* the following account of the first-prize farm of Mr. Richard Checkley, of Brogborough, Bedfordshire.

Mr. Checkley's farm occupies about a square mile of land between the Ridgmount and Liddington stations on the Bedford and Bletchley line, by which it is divided. It lies on the dark-colored Oxford clay, here forming a ridge or escarpment, on the height of