

The Farm.

Ertel Hay Press.

The illustration on this page represents one of the leading hay balers. The name of the Ertel presses have been as common as household words for many years among hay shippers in the United States, where they have been in use for twenty-four years. Messrs. Geo. Ertel & Co., London, Ont., have been manufacturing them during the last year, since which their presses have been in great demand, and are taking the lead for their simplicity and durability. The rapidity with which they do their work, combined with the compactness and smoothness of the bales, make them popular with all who have used them. The proprietors guarantee their "Victor" press to do as represented, or no sale. They offer to ship responsible parties one on five days' trial. Those who contemplate purchasing a press should write them for particulars, and will receive a descriptive circular containing prices, &c., by return mail.

who practice it. In this, as in every other matter, there is a best time for everything and it is of importance for the farmer to know, not only just how, but also when, he should wage war against his insect enemies, so that he may be prepared beforehand and act with precision at the proper time.

During this month the following insects demand attention:—

THE IMPORTED WHITE CABBAGE BUTTERFLY (*Pieris rapae*).

Just when cabbages are heading and the grower is about to realize a return for his labor and expenditure, a green caterpillar about an inch long frequently injures the leaves and heads by eating into them and destroying their appearance. This is the caterpillar of the imported white cabbage butterfly, so called from the fact that this insect is not a native but was introduced, like many others of our injurious kinds, from Europe. The depredations of this

value even as chicken feed, but frequently a source of much harm from the number of weed seeds and injurious insects, as the Hessian fly and wheat midge, which it contains. Some of these pass the winter in a dormant state and when thrown out with screenings to feed chickens are left, as well as most of the weed seeds, and in the following spring the flies hatch and fly off to the fields of growing grain. Some of the Hessian flies, however, leave the flax seeds in August and September and lay their eggs in volunteer crops of barley and wheat, or fall-sown wheat and rye. Many of these may be destroyed by sowing strips of wheat or barley in August and early in September, which are afterwards ploughed under when the eggs have been laid, or by harrowing the stubbles directly the crop has been cut, so as to start volunteer crops, which will attract the flies to lay their eggs before the fall wheat is up. When the fields are ploughed of course the maggots which



Notes on Injurious Insects.

BY JAMES FLETCHER, OTTAWA, DOMINION ENTOMOLOGIST AND BOTANIST.

"Forewarned is forearmed."

In the constant struggle with the hosts of injurious insects, which every year deprive the farmers of so much of the product of his labors, no motto is of more use than the above, if it be acted upon and the proper precautions be taken beforehand for meeting or averting the attacks of these enemies of the agriculturist. Every crop cultivated has its insect enemies. The life-histories of many of them, however, have been worked out and remedies have been discovered by those who make a study of these matters. Having been invited by the editor of the FARMER'S ADVOCATE to make use of his paper in answering correspondence with regard to injurious insects, I shall be pleased to hear from farmers in all parts of Canada, and trust that through the pages of this widely circulated journal some of the simple and inexpensive remedies which have been discovered may be made known to many who are every year unnecessarily losing a large proportion of their crops. The systematic treatment of injurious insects is a branch of practical agriculture which is much neglected by farmers, but which, nevertheless, is found to pay extremely well by those

caterpillar are so severe in some parts of Canada that the cultivation of the cabbage has been to a large extent given up. We have a simple, safe and effective remedy in Pyrethrum, which is also known as "Insect Powder" and "Buhach." This can now be purchased of any druggist and may be used pure, but for this purpose will be found equally effective if mixed thoroughly with four times its weight of common flour. After mixing it must be kept in a tight-closed vessel for at least twenty-four hours before using. If a small quantity of this powder be now shaken over the cabbages, either by means of the small bellows sold by druggists as "insect guns," from a tin with a perforated cover, or from a small bag made of muslin or cheese-cloth, by tapping it with a short stick, every caterpillar upon which the powder falls will be killed in a few hours.

THE HESSIAN FLY.

During September a great deal of grain will be threshed and it would be well for farmers to examine carefully the screenings and rubbish from beneath the threshing machines to see if there are any of the "flax seeds" of the Hessian fly. This pest is increasing in Canada in some districts to a serious extent. A means of decided utility is the burning of all the rubbish from the threshing machine—itsself of little

batch from the eggs will be destroyed with the volunteer crop. The burning of stubble as it stands in the field, soon after the crop is cut, is a remedy practiced with good results in the Western States. The "flax seed" is the third stage of the Hessian fly and is so called from its close resemblance to a small grain of flax. It is a smooth, dark-brown object, about one eighth of an inch in length and those of the summer brood generally occur at the first or second joint of the straw, inside the sheath.

CUT-WORMS.

Cut-worms are the caterpillars of a large class of moths known as the "Owlets," which fly at night. The eggs of many of the cut-worms which attack spring vegetables were deposited by the parent moths upon weeds and other low vegetation during the previous autumn. They make half their growth before winter sets in, and then pass that season in a dormant state just beneath the surface of the ground. Two operations will be found useful in keeping down their numbers, the keeping down of all weeds in autumn, so as to deprive them of their food supply, and late ploughing, so as to disturb them after they have gone into winter quarters and expose them to the frosts of winter.

The great binding twine combination, that has had such effect on the price of this article across the lines, will meet its match in short order if Minnesota succeeds in making at its state prison a twine suitable for binding from home grown flax without the admixture of other fibers.