be consumed without making much difference in the appearance of the fields. It is only after hay is cut, or in seasons of unusual drought, that locust injuries are much noticed. If, however, their numbers at all times and their voracity are considered, it will at once be seen that they must every year destroy much produce. They do not develop wings until July, and previous to that they pass most of their lives low down among the stems of grasses."

Their eggs are chiefly laid in stubble fields or in the case of range lands in sandy or gravelly hillocks about an inch or so beneath the surface. They are very seldom laid in thick sod or in newly ploughed land. In the first case it is difficult for the female to form the chamber in which she lays her eggs, owing to the numerous roots of the grasses, and in the second case the chambers could only be made with great difficulty in the dry, powdery earth. The remedy, above all others, which has given satisfactory results is the ploughing down of the eggs; harrowing has been recommended but cannot be relied on. If farmers would plough infested stubble land either in the autumn or early in spring, the eggs which are laid within an inch or two of the surface are buried so deep that the young locusts when hatched are unable to emerge from beneath the soil, or if they do there is nothing on the surface of the ground for them to feed on so that they starve before they can travel by hopping to where there may be food for them. They are, of course, very small when they first emerge, and the sun during the latter part of May and early June is usually very hot, so that no insect that has to hop and is very small can go far before being destroyed by the hot sun or want of food.

Another remedy which has been successful in Manitoba, is to spread long rows of straw across fields where the young locusts are abundant. They gather in these for shelter and can be destroyed by firing the rows of straw at night.

In meadows and pastures we believe the use of the hopper-dozer the most practical plan that can be recommended. In many cases it can be used to capture these and the leaf-hoppers at the same time, especially if used when the grasshoppers are still quite small and can be held by a thin layer of coal-tar used on the simple flat sheet of iron. When larger they need a deeper layer of coal-tar, or a pan of water with a covering of coal oil on it. A cheap and simple plan for this purpose, costing from $1.50 to $2, was described many years ago by Prof. Riley. It consists of a strip of sheet-iron 8 or 10 feet long, turned up 1 inch in front and 1 foot behind, with pieces soldered in at the ends (or made of wood), and hooks placed in front at the ends for the attachment of ropes. If to run on high ground, it will be better to put runners 1½ or 2 inches high underneath. Into this put a layer of coal-tar half an inch deep, or water and kerosene. It can be drawn by a boy at each end, or by horse-power if preferred.

Against attacks on garden crops or orchards a poisonous mixture has been successfully used consisting of arsenic, sugar, bran and water, the proportions being one part (by weight) of arsenic, one of sugar, and fifty of bran, to which is added a certain quantity of water. The arsenic and bran are first mixed together, then the sugar is dissolved in water and added to the bran and arsenic; after which a sufficient quantity of water is added to thoroughly wet the mixture. Portions of this should be placed near the plants to be protected, and also on hatching grounds if these cannot be treated as previously suggested. This mixture seems to have a great attraction for locusts and they feed upon it greedily.

CAUTION—As Paris green is a very active poison to human beings and domestic animals when taken internally, care must be observed in using it.