

FARM AND FIELD.

THE CANADA THISTLE.

The Canada thistle—which by the way is a misnomer, as it is a native of the Old World—may be known from all other thistles by the small size of the flower-heads, which are always purple, and not generally more than half an inch, or at most, two-thirds of an inch in diameter. Add to this the excessively prickly character of the leaves, and the general bushiness of the stems, which rarely exceed two or three feet in height, and we have characters which will enable anyone readily to recognize the pest. The Canada thistle like most others is, strictly speaking, a biennial; that is it gets a start in life one year and then the next grows up, produces an abundance of flowers and seeds, and then decently dies. That is, the other species die decently. Here is just where the Canada thistle does not follow the custom of all well-behaved thistles. During the second year of its life, which should be its last, it quickly sends out underground a number of stems which secretly penetrate the soil and get a good foothold, so that when the parent plant dies these hidden offshoots do not suffer. Thus, while the plant itself dies at the end of the second year, its underground stems do not. Each of the latter will act just as the parent plant did, so that while each plant dies out on time, the patch of thistles is perennial.

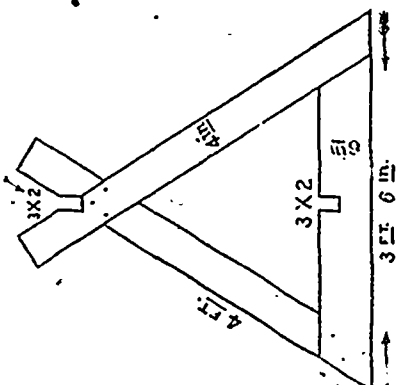
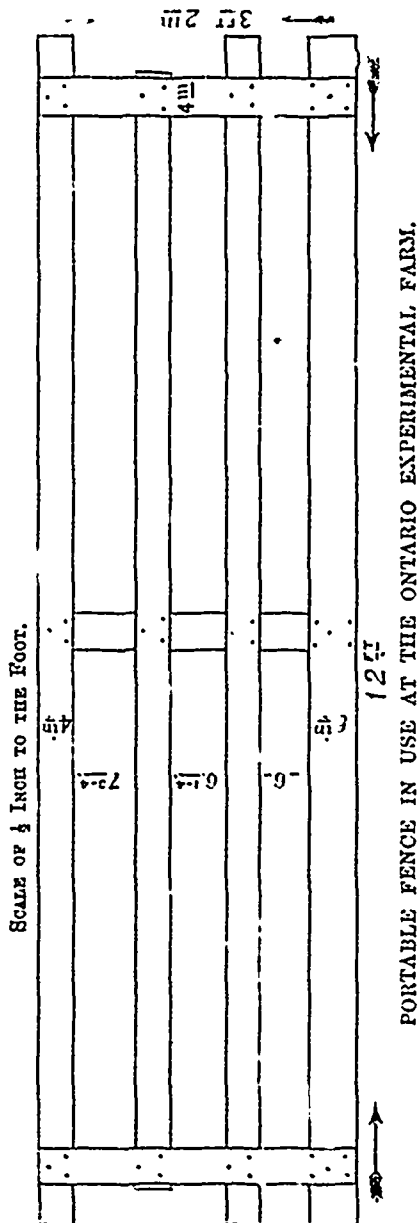
Now as to the destruction of the pest, it is evident that every method resorted to must take into account these underground stems. It is not enough merely to prevent its seeding. That would check it only in one particular, and the least important one at that. More radical treatment must be resorted to. Let me enumerate several methods which will prove successful if thoroughly carried out; 1. No plant, even though it be a Canada thistle, can live without having green leaves exposed to the sunlight. If no leaves are allowed to appear, as by persistent hoeing, any Canada thistle patch may be starved out. The difficulty is that in such a contest between a farmer and his thistles, the farmer gets tired out sooner than the thistles do. 2. Plough up the patch, and carefully pick out every underground part of the thistles that can found by repeated harrowing. After the lapse of a few weeks repeat the process, and then again, and again. This is tedious and expensive, but in some cases it will pay. 3. In the early part of the season cut off every plant at the surface of the ground, and drop on the top of the root a small handful of salt. Some recommend the addition of copperas. This can only be resorted to when the patch of thistles is limited in extent. I know a chemist who destroyed a small patch of thistles in his door-yard by pouring a spoonful of oil of vitrol (sulphuric acid) on the top of the root. *Prof. C. E. Bessey, Iowa, Agricultural College, in N. Y. Tribune.*

THE discovery has been made in England that ammonia may with suitable appliances be obtained from blast furnaces, and one iron firm finds that it has been blowing \$150,000 into the air every year. As a result of this discovery the cost of sulphate of ammonia has been reduced by nearly thirty per cent.

A PORTABLE FENCE.

In the annual report of the Ontario Agricultural College and Experimental Farm, just published, Mr. Jas. McIntosh, of the mechanical department, gives a description of a moveable fence which for durability and simplicity would be hard to excel. It will supersede the mortise hurdle; and any farmer with saw, hammer and material can easily build it. The accompanying cut will give a good idea of the construction. The report says:

"The pieces are all one inch thick, of common pine or pickings; the lower pieces are



six inches wide, all the others four inches, the head being an equilateral triangle of which the base is three feet six inches long. The standing pieces are four feet long with notches cut as shown for receiving the ends of panels, which are twelve feet long, three feet two inches high, and nailed together on three uprights with two and a half inch wrought nails. It will be seen that when in position the fence is three feet five inches high, and I have never heard any complaint of cattle or sheep getting over it."

CARE OF TREES AFTER BEING TRANSPLANTED.

Trees that are not on cultivated land should receive especial care until they have been set more than two years. Trees that do well the first year often die the second because, supposing them to be out of danger, they receive no especial care. It is very well understood that a tree must be looked after the first year, but not understood as well as it should be, that they need particular attention the second year. In our climate the sun is very hot, and we often have long-continued dry weather, sometimes so long as to dry the earth below the roots of trees that have been set but a few years. As a tree full of leaves exhales a very large quantity of water every day, the roots, to keep the tree full, exhaust the moisture from the soil so rapidly that when capillary action is checked by hard-baked crust on top, there is not enough moisture drawn from below to supply water in sufficient quantities to keep life in the tree.

To keep the soil in a condition to rapidly draw the moisture from below, the top should either be well cultivated or well shaded, the later may be best done by mulching, if done before the dry weather commences. The mulch should, if possible, be applied early in the spring. It is wonderful what a difference it makes in the moisture of the soil, whether it be well mulched or left exposed to bake in the sun.

Trees that stand where they are exposed to the hot sun, and have no lateral branches to protect the trunk for several feet above the ground, need something more than cultivation or mulching; they need to have something to prevent the hot sun from shining on the trunks. This can easily be done by winding around the trunks coarse matting, leaving it loose enough for the air to circulate freely.

During the first year after a tree is set, if the land is not to be cultivated, water should be applied during dry weather twice a week, and when applied it should be in quantities to moisten the earth several feet from each tree. It is rarely necessary to stake a tree except in very exposed positions; but when staking is resorted to, great care should be taken to prevent the limbs and trunk from chaffing, by winding matting where they touch the stakes. Trees that are mulched rarely ever require watering the second year, but sometimes in a season of protracted drought, it would be good policy to water them occasionally; in fact, in very dry places it is sometimes necessary to do so to save the life of the tree.—*Massachusetts Ploughman.*

THERE are several ways to make drains. One good and permanent drain is made of bricks placed lengthwise in rows four inches apart and close together at the ends. These are covered with bricks placed crosswise. This makes a solid, enduring and strong drain and admits water very rapidly. Stones may be used in the same way, but need to be placed carefully to avoid displacement. A cheaper drain, but a good one, is made by laying short round poles on each side of the drain and covering them with long ones, or with short pieces of plank placed across, leaving many crevices for the water to soak through.