

Weeds.

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FIG. 9.

Capsella Bursa-pastoria (Shepherd's-purse.)

This is one of the most common weeds we have, but it is never considered difficult to overcome. It grows on all soils and in all climes. It is ready to occupy any neglected spot, but as soon as cultivation begins this annual leaves the ground to plants of more economic value.

Lepidium Virginicum (Pepperwort.)

This annual is not quite so common as the preceding one. It is also an occupant of neglected spots. The plant is about a foot high, presenting a tree-like appearance, with its main stem about nine inches in length branching much at the top. When mature it bears innumerable, small, round pods, each with a slight notch at the top. These small pods, not larger than a shot, are on stalks about one-fifth of an inch in length, and arranged very thickly upon the branches. The tree-like form of the plant and its numerous pods serve to identify it without much difficulty.

Thlaspi arvense (Penny-cross) Fig. 10.

is a more serious weed than those already referred to in the same order. It is very common about the Red River, Manitoba, where it is called French weed, and in some cases has quite overrun the fields. Plants of this species have been received at the college from several places



FIG. 10.

in Ontario. It has likely reached our province in seed wheat from Manitoba. The following description will be of service in identifying it:— Pods circular, flat with broad wings, and a deep notch at the top; leaves oblong, arrow-shaped at the base, toothed and smooth; flowers white and very small; plants about a foot high. It derives its name, penny-cross, from the size and shape of its seed vessels, which resemble to some extent the old silver penny. It is an annual, and, no doubt, can be overcome by thorough cultivation.

Sinapis arvensis (Charlock or Mustard.) Fig. 11.

This is one of the worst weeds found on the farm, and is, therefore, entitled to considerable notice in this description. Unfortunately, many farmers do not consider this weed serious until it has got a good start in the fields. They imagine that the fanning mill can separate it from the grain, and, consequently, it is not to be viewed with alarm. Such forget that the plant is robbing the other plants of their food, and also taking up room which should be occupied by a more profitable crop. By such indifference it will not be long before the field will produce more mustard than other plants. This plant is an annual and produces an enor-



FIG. 11.

mous number of seeds, which can resist adverse conditions that would destroy the vitality of most seeds. They have been known to grow after being buried for a period of fifty years. Two things should be remembered in dealing with this pest:

1. Allow no plants to mature and ripen seeds.
2. Cultivate so as to make what seeds are in the ground grow and destroy the young plants as soon as they appear, because at this stage they are very tender.

Remedies: 1. Immediately after the crop is taken off, harrow so as to encourage the growth of seeds near the surface. A week or two after harrow again, this will destroy many if not all the young plants. Next, use the cultivator, this will bring more seeds to the surface. These will germinate and a new crop of young plants appear. If the season will permit, gang plough to kill these, and bring new seed up, and afterwards plough in the fall; if any young plants appear after this, the frost will kill them.

Harrow in the spring to start a new crop, if any of the seed near the surface failed to germinate in the late fall; follow with the cultivator in a few days and after a time use the gang plough. Suspend operations for a while, then cultivate and sow buckwheat to be ploughed under when about in flower; harrow well and roll, cultivate after a time at intervals, until it is time to sow fall wheat, if this fails to get rid of all, pull the plants before seeding, and follow with a crop hoed thoroughly.

2. Some vary this by harvesting the buckwheat and harrowing, etc., much as described in the first part of the preceding method. The next season manure well and grow a green crop, which must be thoroughly hoed and followed by fall wheat.

3. Summerfallow for one season, and then grow a hoed crop.

4. Follow a system of rotation in which spring crops are not frequent, and keep weeding out the mustard as soon as its well-known yellow blossoms appear. In all cases sow clean seed. It is claimed that the seed of the wild mustard is injurious to cattle.

Dr. Barnardo's Homes and the Farm Labor Question.

Last year, about this time, we were enabled, by the courtesy of Mr. Alfred B. Owen, agent for Dr. Barnardo's Home, Toronto, to furnish our readers with a detailed account of the working of the Institution generally, and we now supplement it from the same source with some of the statistics for 1891.

Between the months of April and November there were received from England 411 boys in four parties (respectively 169, 94, 105 and 40), which, with the exception of 50 from the first party, who were destined for Manitoba, have been placed with farmers in Ontario. These boys are placed out for various periods, according to age—the younger ones till they reach the age of 18; the older for one year or more, the supervision of the home authorities not ceasing until they are considered able to look after their own affairs. It may be interesting to our friends to know that before a boy can be sent to an applicant for one it is necessary that a certificate from a minister or magistrate be sent to the agent, stating that such applicant is a fit and proper person to be entrusted with a boy; also that at the end of a month's trial, if he gives satisfaction, an agreement is entered into, by the terms of which the boy receives what is considered a fair wage for a certain period, determinable according to age. Each boy is seen annually at least by one of a staff of travelling visitors, who enquires carefully and reports as to his appearance, character, treatment, and progress generally, not omitting his attention to religious duties. Boys are also required to write to the home at least twice each year (and as much oftener as they wish), which letters are carefully answered, and in addition a letter of Christmas wishes, accompanied with some little souvenir, is always sent from the home to each to show that their old friends have not forgotten them. The result of this careful supervision shows in the fact that the majority are giving satisfaction. Out of the large number of lads (some 2,530) there have been, during 1891, but two deaths, which speaks itself for their physical health, and there have been but three sent to hospital, all the result of accidents, while out of the total number less than three per cent. have proved themselves failures. The great majority are in communication with the home. The remainder have, on reaching majority, been gradually lost sight of from change of residence or other causes after having been for a considerable time in the country.

The total number of inmates in the London (England) Homes has now reached 4,300, who are receiving maintenance and education. These go through a careful course of industrial training while there, and there is no difficulty in selecting the comparatively small number brought to this country healthy, intelligent and moral; and as to education it is found that they are well advanced and quite equal in the several branches to those belonging to this province.

We may add that on reaching a certain age, and on having fulfilled the terms of the agreement made for them, each lad wishing to do so is assisted by Dr. Barnardo (with the lad's own savings as a basis) in becoming a farmer on land of his own in the Northwest; and it is satisfactory to know that those who have hitherto taken advantage of this scheme are doing well.

During the coming season a still larger number will probably be brought out, and as the demand invariably exceeds the supply, farmers desiring such help should apply as early as possible to prevent disappointment.