

## INSECTICIDES—PROPAGATION OF CURRANTS.

SUBSCRIBER, Peterboro Co., Ont.:—"Kindly answer the following questions: 1. Will Bordeaux mixture destroy Colorado beetles? 2. Will Bordeaux mixture injure the vines? 3. What strength of Paris green solution should be used for beetles and caterpillars? 4. What is the best mixture to use for cabbage worms, as liquid poisons run off? 5. How should currants be propagated and cultivated? 6. How should newly-set raspberry canes be treated the first season? Should they be allowed to bear fruit?"

1. Bordeaux mixture alone would not kill the Colorado potato beetle.

2. If Bordeaux mixture is properly made it should not injure the vines, even if they are completely covered with it.

3. Four ounces of Paris green to 40 gallons of water proves efficacious when the caterpillars or beetles are small, but as they increase in size it may be necessary to apply as much as six or eight ounces of Paris green to forty gallons of water; but if the latter strength is used on fruit trees lime should also be added at the rate of one pound to forty gallons of water.

4. One of the best mixtures for killing cabbage worms is made by mixing one part of pyrethrum powder to four parts of flour and applying it dry by means of a bellows or some other suitable implement. The N. Y. Experiment Station Bulletin 144 recommends a resin-like mixture for cabbage, which is said to stick to the leaves for a long time, notwithstanding rain, and proves very effective in destroying cabbage worms.

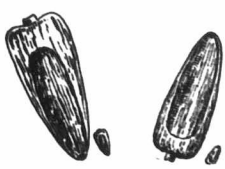
5. Currants are very easily propagated from cuttings, which, if made early in autumn, after the wood is well-ripened, may be immediately planted, and before winter sets in will become well rooted if the season is favorable. The cuttings may also be heeled in in a cellar and planted the following spring. The cuttings should be from six to eight inches long. Black currants propagated in this way should begin to produce fruit in two years.

6. In a large plantation it would not be wise to allow any fruit to form on black raspberry bushes planted this spring. The method usually adopted is to cut the canes to near the ground at the time of planting. By doing this the plant gets better rooted and throws up stronger canes than would be the case if the old wood were allowed to remain. Sometimes, however, in small gardens where the soil is in good condition and there is no danger of the plants suffering from drought, the canes of the plants set in the spring may be allowed to remain and bear fruit, or if several roots have been planted in a hill it would be better to cut back part of the canes to near the ground and leave the others to bear fruit. By doing this there would be plenty of strong canes for the following season. Black raspberry bushes are of a pendulous character, and if the canes are allowed to grow too long they will bend over, sometimes to the ground, and the best results will not follow. The wisest course to pursue is to pinch back the canes which are to bear the fruit the following season to within 2½ feet from the ground, and at the close of the season or the following spring the side shoots which have been thrown out should also be pinched back about two-thirds. By adopting these methods strong, stocky bushes will be the result. W. T. MACOUN, Central Experimental Farm. Horticulturist.]

## YARROW OR MILFOIL.

York Co., Ont.:—"The weed you send is yarrow (*Archillea millefolium*). It is a great pest of the pasture, roadside, and lawn, and can be readily recognized by its disagreeable smell, its much cut leaves, and its flat-topped clusters of white or pinkish composite flowers. The stems grow to a height of two or three feet, and the finely dissected leaves give the whole plant a fern-like aspect. The roots are perennial, but the stems are annual and herbaceous. Its introduction into pasture and lawns is due to its presence very frequently in timothy, clover and grass seed mixtures. These seeds when bought should be carefully examined, and the presence of yarrow seeds ought to be cause enough for rejection.

Yarrow seeds are about one-twelfth of an inch long. Under a hand lens they are seen to be flattened, and broader at one end than the other.



YARROW SEEDS—ENLARGED AND NATURAL SIZE.

The broad end is notched and has a slight projection from the center of the notch. Fine markings can be observed to run lengthwise. These so-called seeds are in reality fruits or achenes, and the real seed can be discerned through the thin walls of the achene. Yarrow is very aggressive for the reason that it not only sends up into the air many stems which bear flowers and seed, but also forms a large number of underground stems which grow out in all directions, and finally send up stems a short distance—three or four inches—away. The habits of the pest will suggest remedies for its eradication: 1. The seed must not be allowed to mature. 2. The underground stems or roots should be prevented from spreading. Persistent mowing will prevent seeding, while cultivation early in the season will stop the growth of the roots. In lawns, grubbing and hand digging will be necessary, while resort might be had to salt or coal oil.

O. A. C., Guelph.

W. LOCHHEAD.

## GETTING A STAND OF CLOVER.

To the Editor FARMER'S ADVOCATE:

SIR,—In answer to Mr. Bloomfield, Middlesex Co., there are several causes why we do not get satisfactory catches of clovers. The chief causes are as follows: First—Some soils are acid or sour, which clover seed will not germinate in, and will lie there for ages. For such soils a good coating of lime would be beneficial; use from 2,500 lbs. to 3,000 lbs. of air-slacked lime to the acre and work it well in. Second—Some soils are deficient in potash and phosphoric acid. Such soils cannot produce a luxuriant and heavy growth. Clover is a very gross feeder of potash and phosphoric acid. One ton of clover hay will require 52½ lbs. of nitrogen, 48 lbs. of potash, 14½ lbs. phosphoric acid.

This crop will take most of the nitrogen from the air, but will require the potash and phosphoric acid from the soil, and these two ingredients will have to be supplied by the grower. Clover will grow upon almost any kind of soil, from the most sandy to the stiffest clay, but on the lighter lands it appears to be more at home. W. A. FREEMAN, Wentworth Co., Ont.

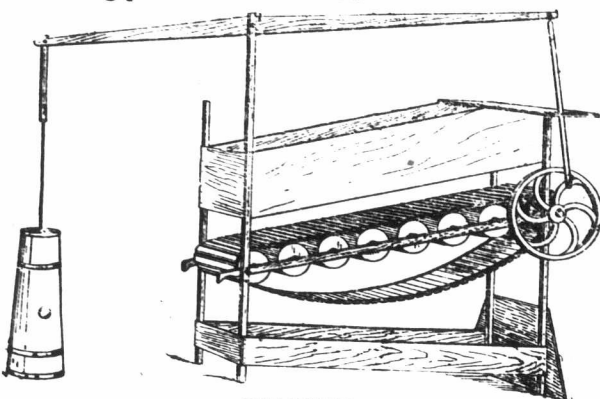
## FEATHER EATING.

LESLIE HOOD, York Co., Ont.:—"I have twelve well-bred hens shut up in a pretty large shed, and they pick the feathers out of each other and eat them. Please find out if you can what the hens need, or what is the matter with them, and answer in FARMER'S ADVOCATE?"

[To stop hens from feather-eating, pare off the lower part of the upper bill with a sharp knife, leaving it just the same shape as it is naturally, but cutting down till blood comes. Do not feed hens for one day, then next morning instead of moistening their soft feed with water use vinegar. Feed very little else than this for one day, then feed as usual again. Feed plenty of meat and green food, and do your utmost to keep them hungry enough all day to make them work for grain scattered in lots of straw. Idleness is largely to blame for feather-eating. Get them running out of their pen as quickly as possible.]

## PLAN OF FARMHOUSE—DOG POWER WANTED.

YOUNG FARMER, Muskoka Dist.:—"I am thinking of building a stone house. Could you publish some plan of a simple, convenient farmhouse? Would prefer a plain, square building, as I want as little expense in building as possible. I would like it arranged for a furnace in basement and open fireplace on first floor. A six or eight room house would be sufficient. Would also like plan of home-made dog power to run churn."

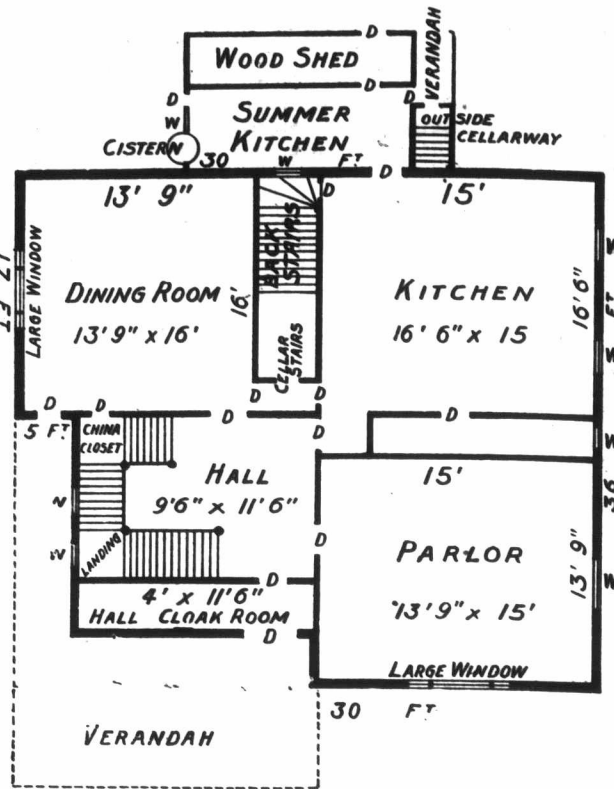


DOG POWER.

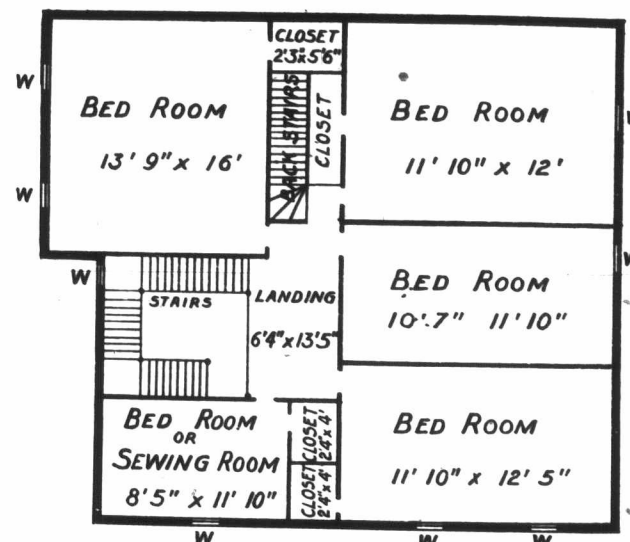
[The accompanying plans of ground and upstairs floors of Mr. R. P. Snell's farmhouse, near Snelgrove, Ont., has many desirable features, as it is compact and laid out with a view to economy of space and convenience. The illustration so well explains the arrangement and dimensions of the rooms that very little needs to be added by way of description. The house is of frame on a stone cellar. It has no furnace, but to put one in would be a very simple matter in a house being constructed, in which case it would be wise to have basement full size of house, with a wall or partition to keep furnace separate from cellar. There is an open fire grate in the dining-room. The superstructure is sided with modern house siding, known as novelty siding. Beneath this is two thicknesses of building paper on another layer of lumber, nailed to the studding, and, of course, the inside is lathed and plastered. The ceilings are high, being about nine feet on either flat. The house is well lighted, as will be noticed by the several large windows. The veranda on Mr. Snell's house extends only far enough to fill out the square, and does not project south of the house, as shown in the plan, but he would recommend anyone building to extend the veranda to where the dotted line is shown. The cost of this house, not counting the teaming of material, was \$1,200.

In May 1st issue of the FARMER'S ADVOCATE we published an illustration and description of a dog power which we reproduce. The plan was sent us by Mr. Thos. Martindale, who described it as follows: "Take four 2x2 oak posts, 4 feet long, put on with 2-inch screws, the lower side boards on the outside, and the upper ones on the inside of the posts. Then make head frame of 2x2 inch oak, bolting front end to frame 2½ feet from the bottom, leaving the hind end loose, so that it can be raised or lowered by pins. Then get a wheel about 20 inches in diameter, drill a hole about 7 inches from center, and put a bolt through to attach a lever. Make two front pulleys 8 inches in diameter, with good flanges. Then run a shaft through the two

front pulleys and the drive wheel and fasten it to frame. For tread use two 2-inch strips, fastened by small wrought nails to slats 12 inches long by 2x½ inches. The cut explains the rest."



GROUND PLAN OF MR. R. P. SNELL'S FARMHOUSE.



UPSTAIR PLAN OF MR. R. P. SNELL'S HOUSE.

## THE FARMER'S ADVOCATE LEADS—COW PEAS FOR ONTARIO CO.

B. B., Ontario Co., Ont.:—"I am very much pleased with the ADVOCATE. I had an offer of a monthly American paper for 50 cents for five years, but thought the FARMER'S ADVOCATE worth more at \$1 per year. It is the best farmer's paper I have seen anywhere, and I get samples of a good many. Your illustrations are about perfect, except in some cases the perspective is not right, making one part of an animal look larger than it ought to. I should like to know if cow peas will do any good here. I got a circular about Benson's cow pea, but the claims made were too good to be true."

[Your card of May 10th is to hand by to-day's mail. We have grown the cow peas in our experimental grounds for several years, and have used in all five different varieties, namely: Whip-poor-will, Southern Clay, Black Eyed, Warren's Extra Early, and New Era. These varieties were all much too late for Ontario conditions; in fact, none of them have produced pods, and usually they have not reached the blossoming stage. In some seasons they have been sown at the same time as our common peas, and at others somewhat later. From our experience so far with the different varieties of cow peas, they seem to be entirely unsuited to our conditions. Even for plowing under I believe we would obtain much better results by using either our common peas or clover in preference to the cow peas which are grown so successfully in the south, but which are by far too slow in growth to be of much value in this climate. C. A. ZAVITZ, Ontario Agricultural College. Experimentalist.]

## HOW MANY CROSSES MAKE A PURE-BRED.

J. K., Waterloo Co.:—"Would you kindly answer the following question in the ADVOCATE: How many crosses make a pure-bred animal?"

[No number of crosses by pure-bred sires will entitle an animal to registry in any of the Canadian records of pure-bred stock. To entitle an animal of any of the breeds of European origin to registry, the sire and dam must both be registered and must trace to imported registered animals. Five crosses of pure-bred sires of the same breed have been generally accepted as fixing the type and for the purpose of laying the foundation of nearly all pedigree records, and an animal so bred is practically pure-bred, though the rules of the records exclude it from registry.]