

At the farm, which is also lit throughout with the electric light, there is a larger electric motor of 16 horse-power which is arranged to drive the farm machinery. This it does quite easily. This motor runs remarkably smoothly and quietly, and requires no governor, as the speed does not vary whatever the load may be. This is especially noticeable when sawing, the power required for which is constantly altering. Another feature of interest is ease and quickness in starting. There is no waiting to get up steam, as the motor is at once started by moving over the switch handle. There are many places in Scotland where water-power now running to waste could be utilised in a similar manner. When the distance is great it would be advisable to run the wires on poles overhead. The above work has been carried out by Mr. R. Frederick Yorke, A. I. E. E., electrical engineer, of Glasgow, under the instructions of Sir Mark Stewart, Bart., of Southwick, M. P.

The West Ross Farmers' Club has been deliberating on a scheme for the relief of old age, and passed a resolution declaring that everyone who has reached the age of 65 should have a pension five shillings a week.

Some time ago the Board of Railway Managers of this country withdrew all free passes for herdsmen and others in charge of live stock. A strong deputation of farmers and members of the leading agricultural societies laid the matter before the managers, showing that this act would prevent the exhibition of stock at the shows. The result of this consultation was that the board with becoming grace abandoned their position, and we hope that the right of men in charge of stock to passes will never again be questioned.

Large quantities of potatoes are leaving the Clyde for America, two steamers recently leaving with 944 tons, valued at £320.

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Veterinary.

ANSWERED BY DR. MOLE, M. R. C. V. S., TORONTO.

BRONCHITIS AND SCAB IN SHEEP.

SAMUEL MACNIDER, Little Metz, Quebec:—"Our sheep are troubled with a discharge from the nostrils which goes down their mouths and causes them so much coughing as to nearly choke them. They also kept pulling their wool out during the last winter, and, on examination, we find the skin covered with a yellow, scurvy-like scab. Please state what the diseases are and prescribe for them." Your sheep are suffering from a severe attack of bronchitis, due to the cold, wet spring combined with exposure, the increased secretion of mucus collecting in the bronchial tubes causing the distressed breathing. Treatment consists in removing the animals to a covered shed, where you have security from the chilly nights and cold draughts. If the patients are inclined to feed, you must be very cautious and feed sparingly; apply some stimulating liniment to the sides of chest, and give a teaspoonful of sweet spirits of nitre and whiskey in gruel; also allow some powdered nitre in the water to drink. Should these instructions be carried out, in most cases you may look forward to recovery in about a fortnight. Scab in sheep corresponds in every way to mange in dogs, horses, cattle, etc. Separate healthy from diseased animals, and employ some dipping mixture. There are so many that it would be unfair to offer any opinion respecting them; my experience favors "Little's Sheep Dip and Cattle Wash", used according to directions; but must not be used whilst the animals are unwell.

BARRENESS IN MARES.

ALBERT SALMON, Thorndale P. O., Ont.:—"I am a breeder of thoroughbred Suffolk horses, and have a young mare rising six years old. I started to breed her at four years old, and she missed. I tried her again last season to two different horses, and still she missed. I would be glad if you can give me some advice to get her in foal, as she is a valuable mare."

This is not uncommon in thoroughbred stock. For some reason (nature has not given any good explanation), as soon as you develop extra quality, the mares will not breed or the males are impotent. In some cases some trifling change of the mode of life, feeding, working, or the water will be the cause. In others a too lax condition of the Os uteri, or a too rigid one, will be the cause in a maiden mare. It may be due to a want of tone in the system. I would advise that you give some good nourishing diet, a dose of laxative medicine, and then a dose of uterine stimulant, which may be procured from any veterinary surgeon. Also at the time of covering use one of Lyford's impregnators, which have been successful in our land.

ANSWERED BY W. A. DUNBAR, V. S., WINNIPEG.

DEFORMED FOAL.

THOS. COPELAND, Saskatoon:—"I have a colt, fourteen days old, that is lame from birth in the left hind leg. At first it could not stand, and had to be held up to suck, but in two days it was able to rise and suck alone, although it scarcely used the left hind leg. It is in good condition and thriving well in every way, excepting that leg, which does not improve satisfactorily. When foaled, both hind legs were bent, the right outward and the left

inward, and the latter was not, then, and is not now, so well developed as the former. The left leg appeared to be more bent inward than the right was outward. The right side is now pretty well straightened up, and the left side is not so bad as it was. I have been under the impression that the hip was dislocated. Is that likely? In short, can I do anything for the colt without the aid of a veterinary surgeon, as we are so far from one that it would not pay to bring him for the whole value of the colt?"

The deformity of the colt is doubtless due to its abnormal position in the womb. We have seen several similar cases, and in each of them the deformity entirely disappeared by the time the colt was three months old. Medical treatment or surgical appliances of any kind are useless. Leave the case altogether to nature, and we think that a satisfactory cure will be the result. The hip joint is not dislocated.

LAME OX.

ESTEYAN, Assa.:—"Kindly answer, through the ADVOCATE, the following question: While plowing last fall my ox appeared to step on something and could not bear to put his foot to the ground; he then seemed to get better, putting his foot down with an effort and pointing the toe on the floor, but, as time wore on, that hip (high side) became considerably thinner than the other. He eats and works well; is still lame, but, if worked rapidly, loses lameness for a short time. What is the trouble and the cure?"

The shrinking of the muscles of the hip does not necessarily indicate that the seat of lameness is in that region, as that condition would likely occur even if the trouble was in the foot, or in some other remote part of the limb. Examine well the *stifle*, compare it with the other one, and if you can detect any difference, you may apply the following blister: Biniodide of mercury and cantharides, of each two drachms; vaseline or lard, three ounces; rub into the part well with the fingers; let it remain for forty-eight hours; wash off, and apply lard to the blistered surface. Give the animal rest.

Miscellaneous.

DANDELION AND OX-EYE DAISIES.

C. B. MAYNE:—"Kindly inform me if dandelions and daisies are an indication of poor land. What should be done to eradicate them?"

These plants are not an indication of poor land. If they once get a foothold they are equally as bad on good land. We have never known the dandelion to give trouble in cultivated fields, or in meadows that are cut for hay. They are often troublesome in lawns and old pastures. Either break up the sod or take one or two crops of hay, which will usually smother them out. If only a few are present the spud may be used.

The ox-eye daisy is, however, a much more difficult plant to deal with, and is one of our worst weeds. We might almost say that it is the worst to get into pastures and meadows. It is a perennial with stems from one to two feet high, but when cut repeatedly it will flower within a few inches of the ground. If there are only a few over the fields carefully about the time they blossom, and pull, being sure to get all the roots. Do not neglect fence corners and waste places. A bare fallow or hoed crop with careful picking the following year will often be quite successful in destroying them, but if the land is badly infested it will be necessary the second year to plow in one or two crops of buckwheat, or grow a crop of green feed, such as rye or millet. The third year plant, rape, corn or turnips. If these crops are thoroughly cultivated the daisy will be entirely destroyed.

LEGAL QUESTIONS AND ANSWERS.

[Answers to legal questions of subscribers, by a practicing barrister and solicitor, are published for our subscribers free.]

LINE FENCE.

In 1890 A and B rented a quarter section from C, which was fenced on three sides, but only partly fenced on the fourth side, adjoining land owned by D. D refuses to build his share of the line fence, but makes use of the part already built by C, and wishes A and B to keep it in repair; this they do. Still D puts his dog on A and B's cattle, which is liable to cause them great damage. There was nothing regarding this matter in the lease between A and B and C. Now, is D liable for damage done the cattle by his dog? And who has to put up the line fence, A and B or C or D?

PORTAGE LA PRAIRIE.

[In the first place, A and B must certainly not allow their cattle to stray on to D's land. If they do, D has a right to chase them off, using a dog for the purpose if he chooses. In the next place, D's dog must not chase the cattle when they are not on D's land, and if the dog does so D would be liable for any damages done. In the next place, as to the line fence, C, as the owner of the land, has a right to build the line fence, and can compel D, as the owner of the adjoining land, to pay a proportion of the value of the line fence.]

DISPOSAL OF GOODS.

What is the penalty for disposing of goods held under chattel mortgage?

[There is no special penalty. It is generally provided in the mortgage, however, that if the mortgagor sells the goods the whole mortgage money shall at once become due and payable. Before saying what might be the penalty in any particular case, it would be necessary to see the mortgage.]

GARDEN AND ORCHARD.

Horticultural Notes.

BY W. W. HILBORN, LEAMINGTON, ONT.

See that your grape vines are tied so that the wind will not break down the new growth.

Strawberries planted this spring should have all the blossoms cut off, the first runners should also be cut off. When the plant becomes strong enough to send out three or four runners at once they may be allowed to remain.

The new Raspberry and Blackberry canes should be pinched back the last of this month, or when they have grown to the height of two or two and a-half feet. This will cause them to throw out laterals; hence can produce more fruit, and are not so apt to be killed back by the winter, as they are nearer to the earth. They will not require any more pruning until next spring, except that the old wood should be cut out as soon as the crop of fruit has been taken off. In localities where the snow falls to a great depth it is often advisable to allow the old wood to remain until spring to help support the new canes.

To plant out a new plantation of Red Raspberries, if you can procure plants near by, there is no better time than when the new growth or young plants are about a foot high; transplant on a damp or cloudy day, pinch out the top, and you will get a larger growth than from plants put out in early spring.

CULTIVATION OF THE SOIL.

Perhaps no branch of farm work is less perfectly understood than the cultivation of the soil. Every one knows that corn, potatoes and all other vegetables grow better when well cultivated; why the soil should be cultivated, when it should be cultivated, how deep and how often it should be worked to give the best results, are of the greatest importance. To answer these questions we must first consider what we cultivate for. Analysis shows that about eighty per cent. at least of the composition of vegetables is water. We must, therefore, try to supply the required amount of moisture during the dry, hot weather, otherwise our crops will not succeed. This may be done best by frequent cultivation; the soil may also be dried out by cultivation. It is, therefore, necessary to know just how to proceed to gain the end in view. Cultivation causes moisture to be retained in the soil:—First, when the soil becomes firm with the spring rains or from any other cause, the moisture is brought up to the surface by small capillary tubes which are formed in the soil, and evaporates it very rapidly. By stirring the soil those little capillary tubes are broken off that have been continually pumping the water to the surface for evaporation, and prevents the moisture from raising farther than to the point where the cultivator has stirred the soil and made it so porous that the little particles of water cannot follow to the surface, hence are retained in the soil just at the point where it can do most good to the growing plants.

Another and very important reason why cultivation produces moisture is that by stirring the soil it is cooled off considerably, and thus causes the dew, which falls at night to be deposited down in the earth, while soil that has not been stirred is not much if any cooler than the surrounding atmosphere, hence does not attract the dew.

It is quite a common belief that cultivation is only to kill weeds. That may be so during a wet season. But cultivation to retain and produce moisture is the first consideration, as most every season when vegetables and small fruits should be making their most vigorous growth we are apt to have dry, hot weather. At this time the cultivator should be kept going over the plantation twice a week, and three times would be better. If this is done, sufficient moisture will be produced during the driest weather to keep plants growing vigorously.

If, however, cultivation has been deferred during dry, hot weather until the soil is dry down to the depth of several inches, then cultivate quite deep, wait a week and cultivate a little deeper, and you can dry the soil out as dry as an ash heap. On the other hand, you may cultivate two inches or less in depth, and do so often, and you can keep the soil moist to within one or two inches of the surface during the driest seasons we ever have, and there will be little difficulty with weeds.

After every rain it is very important to cultivate as soon as the soil is dry enough to work. If left a day or two too long evaporation is very rapid, as capillary tubes have again been formed to the surface of the soil by the rain compacting it or forming a crust; this should be broken as soon as it can be done without causing the soil to bake or become hard by stirring.

Cultivation should always be done to about the same depth to avoid disturbing the little rootlets that are continually forming in the soil, and these will come as near the surface as they are allowed, for it is there they can get the best supply of food suited to their requirements; hence the necessity of shallow cultivation to obtain the best results. There may be some exceptions to this method of shallow cultivation, but they are few in this province of Ontario.