value as they do have under our present conditions. Not only have we these waste materials—grass, coarse fodder and truck refuse—but in addition, right to hand, are immense amounts of by-products from these specialty crops which are especially valuable for finishing or fattening live stock of all kinds.

Stomach Worms of Sheep.

It is during the summer months that loss from the twisted stomach worm of sheep occurs, and flock-owners should early endeavor to prevent their flocks from becoming diseased. Healthy adult animals seldom become affected with this disease, and the greater part of the loss occurs among young and weak animals. However, if the conditions are favorable for the sheep to become infested with this parasite, the death rate among the mature animals is also heavy.

This disease is not as difficult to treat successfully as is generally believed. The preventive treatment is very important. It is based on keeping the sheep in a healthy, vigorous condition, and among surroundings unfavorable for the entrance of the eggs or larvæ of the parasite into the digestive tract with the feed. Drinking surface water and permanent pastures, especially if pastured close, are favorable for the production of the disease. The preventive measures that are most practical to use under the local conditions can be judged best by the person in charge of the flock, and the success of this part of the treatment will depend on the precautions that he deems necessary, and the thoroughness with which they are carried out.

Sheep-raisers who have lost sheep from this cause in former years, should not wait until the disease develops in the flock before using medicinal treatment. The following mixture is recommended by Dr. Law, and has given excellent results: Arsenious acid, one dram; sulphate of iron, five drams; powdered nux vomica, two drams; powdered areca, two ounces; common salt, four ounces. This mixture is sufficient for 30 sheep, and can be fed with ground feed once or twice a week. In case the symptoms are already manifested, it should be fed once a day for two or three weeks. In giving this remedy in the feed, the necessary precautions should be taken, or each animal may not get the proper dose. Turpentine is largely used in the treatment of stomach worms. It is administered as an emulsion with milk (one part turpentine to sixteen parts of milk). The emulsion should be well shaken before drenching the animal. The dose is two ounces for a lamb and four ounces for an adult, and to be effective should be repeated daily for two or three days.—[R. A. Craig, Veterinarian, Purdue University Agricultural Experiment Station.

Suggests a Judge Selection Committee.

Editor "The Farmer's Advocate":

As the subject of judging at fairs is up for discussion, it seems to me in some places the actual work is done at the time of the annual meeting, when it is a question of "you pull for me and I pull for you," and so forth. Interested members get their man appointed a director in their class, then said director seeks around among his friends and acquaintances for good men for judges, and he finds them sure. Now, if the exhibitor that has no friend among the judges gets no prize, and he seldom does, he is very likely to be suspicious, and it is not hard to see the reason why. I would say let us try one judge, and he to be appointed by a central committee, they to be under the Department of Agriculture, and when a man accepts the appointment he alone will be responsible for the awards, and societies have the privilege of reporting to the committee whether the awards have been satisfactory or otherwise. We would not ask for perfection in judging, but we do ask that every reasonable cause for suspicion that one exhibitor has any advantage over another be removed.

SANDY.

THE FARM.

Successful Seeding of Clover with Buckwheat.

Editor "The Farmer's Advocate":

In reply to your request to those having had experience sowing clover seed with buckwheat to state results, would say that I have done so on different occasions, and have never failed to get a catch. I have always sown timothy seed along with the clover, as there being so little stubble left to protect it, and the plant small, the clover is apt to heave and winter-kill in severe winter, but timothy will stay. Land should be plowed early and well worked down to get good seed-bed. Would sow about 8 lbs. clover and 5 lbs. timothy per acre. I cut nice mixed hay and crop of clover seed last season from piece so seeded on black loam. On light, warm sand loam that would not heave, timothy might not be necessary. Have any of your readers had experience in sowing clover or timothy with millet, and what was the result?

Norfolk Co., Ont. E. A. OWEN.

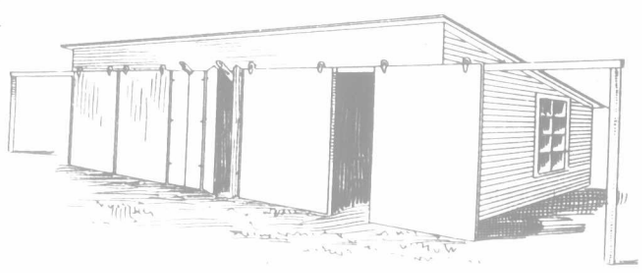
I received the knife all right. I am very much pleased with it. It certainly is a beauty. I thank you, and shall do my best to secure more premiums. C. M. WATERMAN.

N. S.

Protecting Farm Machinery.

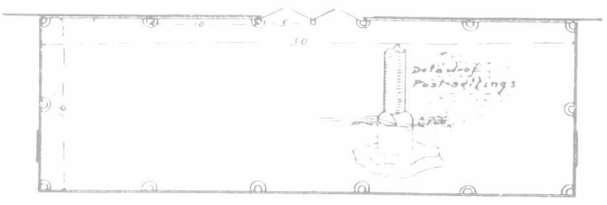
Editor "The Farmer's Advocate":

Many thousands of dollars are lost annually by the exposing of farm machinery to the elements. Binders, mowers, rakes, wagons, and the whole list of farm utensils, are too often left to the mercy of the wind, sun and rain, doing them more injury than their work. Farming must be a profitable business if it keeps the farmer afloat under such conditions. The life of a machine is short enough, without shortening it by undue exposure. This is one of the most potent leaks



A Cheap Implement Shed.

in average farm management. Perhaps the most expensive machine the average farmer uses in the field is the self-binder, and none other is so susceptible to injury by rain, especially the knives, which, if left exposed to the rain or dew over night, will be rusty in the morning. Where it is practicable, machines, such as mowers, rakes, etc., can be taken to the barn and put under cover over night, but if lanes and gates are not conveniently arranged for the binder, an old sail or oiled canvas can be thrown over it, and in no case should it be left out after the cutting is done. I think it is in the interest of every farmer to try to keep his machinery in good working order. Surely it is a great mistake to let one's hard-earned dollars, in the shape of implements and machinery, deteriorate day after day, and year after year, for the want of shelter. Not only does it shorten the years of work of an implement, but it also destroys its working powers. Strange as it may seem, the man who does not store his machinery is the one who cannot afford to keep it outside, while the one who takes care of it is the one with ample means.



Interior of Implement Shed.

JAMES STAVERT.

East Prince, P. E. Island.

Rape a Valuable Pasture.

To those who have had experience in growing rape as a forage crop for pasturing sheep, cattle and hogs, it is surprising that it has not grown more rapidly in favor. It is a crop the growing of which requires very little skill. The preparation of the soil for rape-growing is simple, the seed is cheap, it is a sure crop in almost any sort of season or soil, it provides a large amount of the most fattening pasturage, its cultivation cleans the land equal to a fallow or a root or corn crop, and leaves it in the best of condition for growing following crops of any kind. Rape may be sown at any time from May to August, with good reason to expect a profitable crop. The latter part of June, however, is the favorite time to sow. The ideal preparation is a field that has been fall-plowed, surface-manured during winter, and surface-cultivated a few times in spring to destroy weeds and retain moisture. But a clover sod, plowed in spring or early summer, and rolled and disked or cultivated, makes a very good preparation; and a stubble field, plowed in spring, and made fine and mellow by frequent use of roller, harrows and cultivator, if the land is fairly rich, may produce a good crop. We have seen a good crop grown on clover sod or barley stubble plowed after harvest. It is better to sow in drills 24 to 26 inches apart, as for turnips, either on raised ridges or on the flat, sowing two pounds of seed per acre, and cultivate with the horse hoe to keep down weeds and stimulate rapid growth; but on clean, rich ground a good crop may be secured by sowing broadcast at the rate of four or five pounds per acre, and covering with the harrow. As a pasture for lambs after weaning, for ewes in the breeding season, for growing pigs and brood sows, for calves or other young cattle, and for dry cows, there is nothing better to keep them in good health and fit them for going on well in winter. Freezing does not injure the crop for feeding purposes, but rather improves it. Stock will do well on it right up to the time when it is covered with snow, and sheep will scratch the snow from it with their feet and revel in it.

Care is necessary in turning stock on rape at first, to avoid bloating, till they get used to it. They should not be turned into it hungry, or while it is wet with dew or rain, and it is well to give them, also, the run of an old grass field; but when fairly accustomed to it, they may be safely kept upon rape constantly, with little risk. For best results, rape should not be pastured till it had grown to a height of 8 or 10 inches, except for pigs, which like the young and tender leaves; but for sheep and cattle, the larger and stronger the stalks, the more fattening is the forage.

Advocates Windmill Power.

Editor "The Farmer's Advocate":

I have been reading the letters in your valuable paper concerning windmills. I am glad to see that only one farmer disapproves of them. For my part, I shall encourage all my farmer friends to erect a windmill in preference to all other powers, as it is the cheapest all around. All the expense required for upkeep is one dollar for oil and plates per year. This is my experience after grinding about two thousand bushels of grain per year, shelling corn, running pulper and cutting-box. I have also run a corn shredder and husker, with a capacity of fifty bushels per hour, and pumped water for the cattle. By attaching a hose to force pump, and starting the mill, can sprinkle lawn and garden, or wash a rig. Mr thirteen-foot air-motor does all that for me. I think that it is the best help I have on the farm, and I would never be without a windpower. It does most of the work by itself while I am in the field at work.

If a farmer has any considerable number of stock, he will have to go to the mill every week or two, and sometimes has to make an extra trip, besides paying the cost of grinding. My experience is that the Airmotor is quite safe from fire, and it has never run away, as it controls itself in the wind. FRED COTE.

Essex Co., Ont.

Alfalfa Hay Making.

Editor "The Farmer's Advocate":

Lucerne or alfalfa for a hay crop has been grown in this district for many years. Personally, I know of fields that have been in alfalfa for over twenty years, and are apparently as good as ever. I have had twenty years' experience in feeding this hay, and have grown it on my own land for eight years. When I became interested in the cattle business I put twenty acres in lucerne, and have since added to it, so that I have now about forty acres seeded.

We generally cut three crops a year, or, perhaps, make hay of two crops and pasture the third. The first crop usually produces over two tons per acre, the second about two tons, and the last probably one and one-half tons, making in all five or six tons per acre per season. The second crop is the easiest to cure, as it is generally cut in hot, dry weather; and the last is the most difficult, owing to the damp, cool nights and short days.

We start to cut when the blossoms begin to appear, and would cut the first crop earlier but that the weather is seldom fit. My books show that we usually cut the first crop from June 15th to 20th, and the second crop early in August. As to the best method of making lucerne hay, no hard-and-fast rule can be laid down. Much depends on circumstances, just as in handling other clover. Our method is to cut, if possible, when the ground is dry, and after the mower has, say, two hours' start, we put the hay-tedder at work, following the rounds of the mower. This opens up the swath and leaves the hay in such shape that the sun and air may dry it without scorching or bleaching, as must occur if left in a dense heavy swath. We usually rake and put in medium-sized coils the same evening, and if good dry weather, haul to the barn the following day. It is a great help in curing to turn the coils over so the bottom is exposed to the sun for an hour or two before hauling in. This plan works only in "hay weather." If cool and damp the hay will not cure so quickly, and should not be housed till cured. There is a great difference between hay being cured enough to save and being so perfectly dry that it is brash or brittle. The aim in curing lucerne should be to have it sufficiently dry to store in mow, but not dry enough to allow a loss of leaves and fine stems. The feeding value may be easily reduced by 50% by a loss of the finer parts, leaving an excess of coarse fiber in the stems. Another very important point is that it must be free from foreign moisture. If the coils are dampened by a light shower, or if covered with dew in the morning, the hauling should be delayed or the hay will come out of the mow in a musty condition. We usually put it in the mow with a horse fork, and find that directly under the track it becomes packed harder than baled hay, and usually turns slightly brown in color, while at the edge of the mow it remains almost as green as when put in. We notice no difference in feeding value, as the leaves and stems are all right.

Well-saved lucerne is the very best hay for horses or for cattle. The only difficulty in feeding to horses is that they like it too well, and if given a large