

Green Mold in Silage.

A. O. Telfer, of Middlesex County, a couple of weeks ago brought in a sample of silage which was infested with a green mold. Mr. Telfer informed us that the mold is not found near the outer edge of silage, but at least two feet from the wall. In his silo this year this mold is found principally on one side, where it shows in a sort of half circle about two feet wide and two feet clear from the silo wall. Small spots of it are seen also in other parts of the silo. Once in a while he seems to get below the mold-affected part, but mold either starts again in the same place, or else more of it is again uncovered. Alex. Robb, a neighbor of Mr. Telfer, mentioned to us last year having trouble with this particular green mold, but this season his silage is free from it. He is inclined to attribute the presence of the mold to his corn not having been mature enough. Mr. Telfer says his corn this year was not as ripe as he prefers to have it, but declines to assert the probability of that being the cause of the mold.

The sample was sent to Professor Harrison, Bacteriologist, of Macdonald College, Que., who finds that it contained mostly the common blue-green mold (*penicillium glaucum*), but that there was also another green fungus present, a species of *Aspergillus*. The only explanation Prof. Harrison offers for the facts as given by Mr. Telfer, is that the exterior of the silo was sufficiently cold to prevent the development of this mold. It is quite possible, he says, that mold will develop as the silage is removed, particularly if the temperature is favorable. The spores of many of these molds are probably present on the silage, and only require the usual conditions for germination, which are moisture, suitable food supply, air, and sufficient temperature. Remove any one of these conditions, and the mold will fail to develop. In the silo, the condition which is usually absent is lack of air or oxygen, hence the spores cannot germinate, and the mycelium cannot grow. I do not think that the spores of these molds are killed by the fermentation which goes on after the corn has been put into the silo, and hence they may be said to be awaiting favorable conditions for germination."

Inoculation and Lime in Alfalfa Culture.

Judging from correspondence received by "The Farmer's Advocate," discussions at farmers' meetings, and inquiries for seed, there is likely this season to be a greater area on Canadian farms this season sown to alfalfa than during any previous year. In New York State, where the natural conditions are not greatly dissimilar to those of Ontario, an investigation to determine the real need for inoculation and applications of lime has been going on for several years at the New York Experiment Station, Geneva, and on some 200 farms throughout the State. In summing up, about one-half of these were eliminated because of inaccuracies. In each case there were four plots: (1) No lime and no inoculation; (2) lime and no inoculation; (3) no lime and inoculation; and (4) lime and inoculation. The inoculating soil was from an alfalfa field at the Station, sown broadcast at the rate of 200 to 300 pounds per acre just before sowing the seed. The stone lime, finely slaked, was applied to the soil and thoroughly worked in, two or three days before the seeding to alfalfa, about 1,500 pounds to the acre. (See illustration, page 650.)

Dr. W. H. Jordan, the director, reports that where neither inoculation nor lime is applied the chance of a successful crop is not more than 20 per cent., or one chance in five; where lime is added, the chance is raised to about 60 per cent.; and where both are used, the chances of success are raised to four out of five. Sensitive litmus paper is used as a test of the soil to determine the need for lime. The conclusion is drawn that the natural lack of inoculation and of lime in the fields of the State is responsible for the larger part of the difficulty in establishing alfalfa. Of the two, the lack of lime is reported the more common, as practically all fields respond to its application. However, the lack of inoculation is more often the controlling factor, and the application of soil changed about twice as many fields from a failure to a success, as did the application of lime. When sufficient inoculation is already present in a field, the addition of more is without apparent effect. Good results are not to be expected unless the soil is thoroughly drained, reasonably fertile, and so well prepared as to destroy the maximum number of weed seeds. Then, the best and most economical way to determine the need for inoculation and lime is to try an experiment according to the plan in the New York Experiment Station. In Canadian practice, good stands of alfalfa are usually secured without either inoculation or liming, but it is well worth considering whether still better and more profitable results might not be secured by their application. The way of experiment, why not give the treatment a trial?

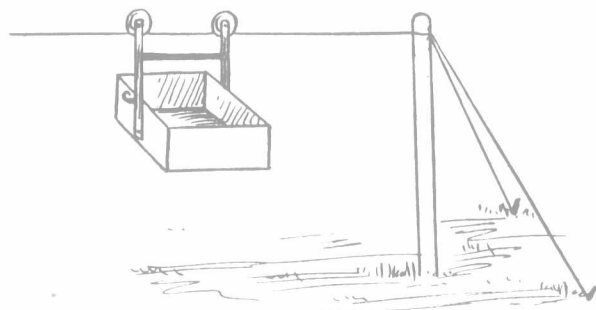
Labor-saving Devices.

FIRST-PRIZE ESSAY.

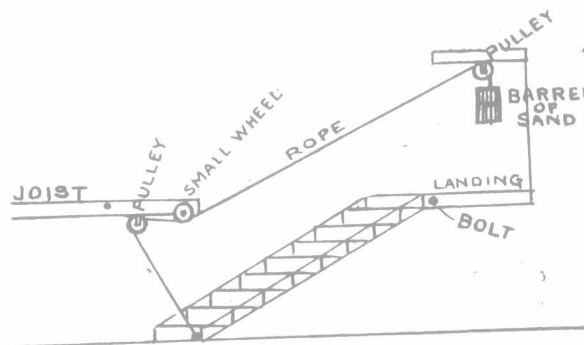
Editor "The Farmer's Advocate":

The labor-saving devices on our farms are many. A man can very seldom walk through a neighbor's building or over his farm but he will, if he is wide-awake, get an idea, or see something done that is an improvement on his own methods, thus saving time and many inconveniences. I believe in the old saying, "Two heads are better than one."

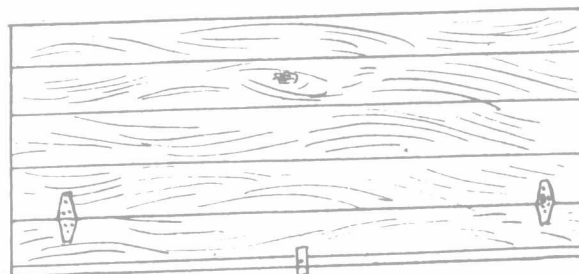
No. 1.—One day, when I was drawing my turnips into the barn, taking the box all to pieces, and letting them roll into the root-house below through the trap-door in barn floor, they were unusually scattered, when I noticed the sling ropes there, and wondered if I could not save time by using them. Accordingly, I unfastened my team from the wagon by just removing the draw-bolt. I then took a sling rope and fastened the ends to the two front wheels of the wagon. The big rope was then fastened firmly to the scaffold beam above, and on it was the hook pulley. The rope



Homemade Litter Carrier.



Device for Raising Steps.



Manger Trapdoor, Closed.



Manger Trapdoor, Open.

(Our artist should have had trap fold clear back, with a button to hold it.)

was allowed to hang down several feet, and then returned again and went through a pulley that was fastened to the same beam above. It then came down and went through the pulley that is at the floor on the side post—the one that is always used when "drawing off." We then blocked the hind wheels of the wagon, fastened the hook on the hook pulley to a ring on the sling rope that was attached to the front wheels, pulled out the end board of wagon, opened up the trap-door, hitched the horses to the end rope as if to draw off. We went out far enough to have the front wheels raised about three or four feet, rolling the turnips into the root-house in a hurry. The horses are soon backed up to lower the wagon. They are then unfastened from slings, and hitched to wagon after rope has been taken off, and we are soon out in the field again.

It does not take long to fix up this contrivance in the first place, and, after it is once prepared, we can unload in from three to five minutes, saving labor, as well as time. I have unloaded my roots in this way for several years, and would not think of going back to the old-fashioned way.

No. 2.—Every farmer knows that clover chaff and dust are not good for horses, and there always seems to be a large amount in the bottom of their mangers. I took a narrow bottom board off the front of their mangers in the feed-room, and with my hand I could clean out these mangers very easily every day. I left it off while feeding hay of any kind; but I feed some cut straw in the winter, and I found that it came out, so I put the board back into its former place, and fastened it there by hinges. I put a button to hold it closed at the bottom, and one at the top to hold it open; and so I have a handy little trapdoor, and my horses' mangers are always clean. My feed-room is between the horses and the cattle, and everything that comes through the trapdoors as left-overs is given to the cows, and nothing is wasted.

No. 3.—One can go into some barns, and the steps leading upstairs are conspicuously present, because they seem to be so much in the way; but as they are absolutely necessary, they must be tolerated. The steps in my barn were very much in the way, and one stormy winter's day I undertook to remedy this. At the top I fastened them by large hinges to the barn floor (our steps lead first to a small landing). I fastened a stout rope to the bottom of the steps, and then attached a pulley to the joist, directly above. Another pulley was then attached at the edge of the landing to another joist. At the ceiling above the landing was placed another pulley. I then put the rope that was attached to the bottom of the steps over the first pulley, under the second, and over the pulley attached to ceiling above landing. To the end of the rope is attached a nail keg, in which is placed enough sand to balance the steps. It takes a very slight lift to put them out of the way, and one can have the floor clear to use as desired. If the landing is not built high enough to allow the keg to come down far enough to put the steps out of the way, why, put a hole in the floor of it, and the keg will come down the desired distance.

No. 4.—I made a cheap litter carrier by making a box about three by four feet, and a foot deep. I took it to the blacksmith, and got him to strengthen the corners with iron bands. He also made the frame that goes over the top out of an old wagon tire. The frame is fastened near the bottom of the box, about an inch to one side, so that it will dump. The dumping is regulated by a weighted pin. I made the cable out of No. 13 wire, about fifteen strands. I twisted it by fastening all the strands together to a post and the other end to a wagon wheel, and, by turning the wheel, the wire was twisted. The cable was fastened to the far end of stable, and from there to a high post in the barnyard. The post was braced solidly, and I found it to work very successfully.

Middlesex Co., Ont.

GORDON BANTING.

The Closet on the Farm.

Editor "The Farmer's Advocate":

In "The Farmer's Advocate" of March 16th, "Onlooker," writing on the above subject, rightly remarks, "delicacy prevents a great deal being said." Nevertheless, it is a vital one to the health of the women and children. I am sure the draft and coldness of many of the closets is the unsuspected cause of many an illness. We have no modern improvements in our house, yet we get over the difficulty in a way at once simple and effective. We have an unused room, and in this is kept a "night stool" or commode. I do not think they are costly things to buy, but, at any rate, one could be easily made. A zinc pail is used, and a pan of ashes, with a shovel kept beside it. A free use of these will prevent anything unpleasant arising. The pail should be emptied at least once a day, rinsed round with hot water, and if handy, disinfectant used. The pail is emptied at some little distance from the house into a hole dug before the frost hardens the ground, and when winter is past, it is covered over with earth. Two pails, one to use, and one to air, are better.

Everyone has not an unused room, but a clothes closet, with a window made in it, would do; but never use any closet without a window. If this is not possible, a closet, with night stool and pails, could be made for winter use, much closer to the house than that used for summer, and a way made to it through a woodshed, perhaps.

It is the hole in the ground that makes the usual closet such a cold, drafty place, and we have never let the little children be exposed to it.

Brant Co., Ont.

Passing a Good Thing Along.

I have been so pleased with your agricultural journal, "The Farmer's Advocate," that I have decided to make a present of a year's subscription to a relation of mine in Scotland, who is a Clydesdale breeder, and a good judge of horses in general. I have received some very valuable information on different subjects through your valuable paper, hence my desire to let my friend have the same benefits.

Hochelaga Co., Que.

JAS. D. CARRUTH.