Clover Ensilage.

At the last meeting of the Farmers' Institute, held at Waterdown, Ont., Mr. Richard Attridge, of East Flamboro, Wellington Co., favored the farmers present with his experience with clover ensilage. The "Farmer's Advocate" has pleasure in presenting its readers with his experience upon this interesting matter.

"Early last summer I was convinced that the season was not likely to be favorable to the growth of corn, and I made up my mind to use clover as a substitute for filling my silo. I made what enquiries I could, but I was unable to find anyone who could direct me. Accordingly, I made up my mind to do a little experimenting in this direction. I waited till the clover was in full bloom—till what some would consider the earliest cutting time, but when others would believe was too early to begin the clover harvest. I engaged men and teams as I would for filling with corn, and on the day appointed waited till the dew was off the hay before starting the mowing machine. However, just about noon a heavy shower of rain came on, and nothing was done till after dinner. The first clover put into the silo was, therefore, quite wet. This part of the ensilage when I began using was quite black and useless; indeed, it was simply manure. The next few loads of clover were much drier, and this turned out to be very good ensilage. In the meantime the sun and wind had thoroughly dried the standing clover. This was cut and hauled at once to the silo. The ensilage resulting from this proved to be thoroughly sweet and good, and desirable in every particular, having all the good points of good corn ensilage. The cattle eat it greedily, thrive well on it, and it does not taint the cows' milk. I may say that I followed the usual methods of filling a silo with corn. I cut it the usual length, and had it well tramped in the silo.

Do Not Use Formalin Solution too Strong.

A subscriber from Gorrie, Ont., states that he sprinkled his seed wheat last fall with diluted formalin, ¾ pint to five gallons water, two days before sowing, and that, as scarcely any of the wheat sprouted, he had to sow the field the second time. Two neighbors had the same experience. He asks whether he used it too strong, the ¾-pint in solution having been sprinkled on fifteen bushels. He also raises the question as to whether the difference in thickness of hull between wheat and oats would have anything to do with the effect of formalin on the germ of the grain, and wonders whether he could treat his seed a couple of days before sowing.

We feel safe in stating that the solution was decidedly too strong. Those who read the article on "Treatment of Seed Grain for Smut," in the "Farmer's Advocate," of issue March 9th, will remember the caution that it had been thought formalin delayed somewhat the germination of the seed. Recent results from Guelph, Ont., and Purdue University, Indiana, seem to indicate that if used too strong it injures the germ of the seed and reduces the yield. All agree, however, that it is perfectly safe if used in proper strength, and that of all the remedies for smut formalin is the best. The strength used in 1904 by Prof. Zavitz, of the O. A. C., was ½ pint to five gallons water for sprinkling, and ½ pint to 21 gallons water for twenty-minute immersion. The percentage of smutty heads was nil in each case, but sprinkling with the strong solution somewhat reduced the yield, as compared with that from other treatments. Our correspondent, by the way, used a 50-per-cent. greater strength. Taking everything into consideration, Prof. Zavitz concludes immersion of oats for twenty minutes, by using ½ pint formalin in 21 gallons water, has given excellent results. The treatment is easily performed, comparatively cheap, and very effectual.

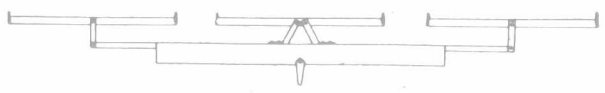
The Purdue Station found a much weaker solution sufficient. The method they recommend is to sprinkle the seed oats with a solution of formalin of the strength of one pound (a little less than a pint) of formalin to fifty gallons of water until nearly moist enough to pack in the hand, shovel into a pile and cover. After two hours or more the oats are ready to sow, or can be spread out and dried and kept for future sowing. Formalin is a gas dissolved in water, and the reason for covering the oats is to keep it confined and give time for the gas to penetrate between the chaff of the grain, and thus reach every spore of the fungus. The cost of the material for this treatment is about 1½c. a bushel—less than 5c. an acre.

From the foregoing, our caution, based mainly upon our own experience, was well advised. Though possessing no data upon the point, we regard it as not unlikely that the germ of the wheat grain would be more readily affected than that of the oats, but do not think anyone need be afraid of sprinkling on any grain the solution recommended by the Purdue experimenters. A word of caution might be added—to dry thoroughly by means of shovelling of any grain that is to be put back into the bin after treatment, and to take care that treated seed is not re-infected with smut spores by contact with other grain, or with bins, sacks or drills bearing the spores, as a few spores go a long way towards infecting a bushel of grain.

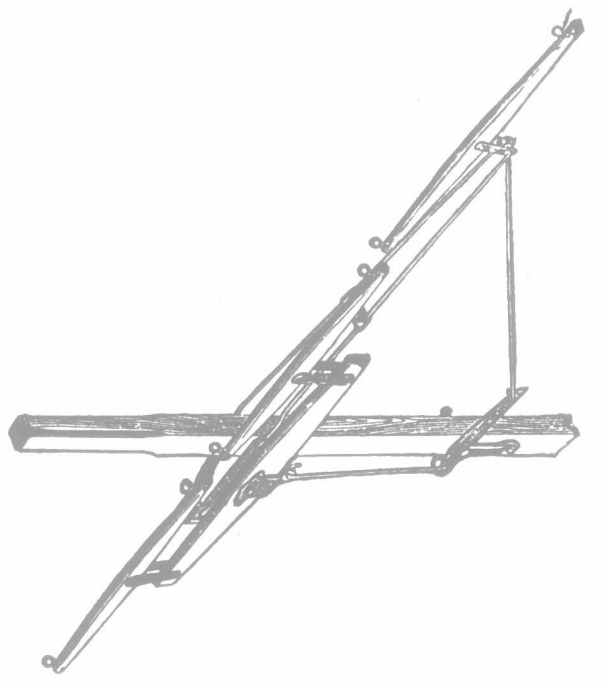
Eveners to Burn.

Below will be found a further assortment of three-horse eveners. The first cut is from a sketch sent us by W. L. Lockhart, Westmoreland Co., N. B. The second illustrates the Deering style of evener, which may be seen in almost any locality. The third cut is from a drawing sent us by Milton Rose., Dundas Co., Ont.

K is oak upright 14 inches long, 2 inches thick, 6 inches wide; bolted with two bolts, N and P. B is two-span 6 feet long. C is a hole



No. 1.



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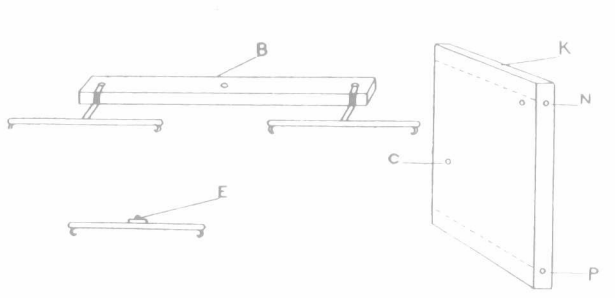

No. 3.

2½ inches back and four inches above a hole A (which should be shown in the lower, right-hand corner of cut, corresponding to the hole in the upper corner, which should be labelled D, D and A being 12 inches apart). E is the whiffletree of center horse. Attach two-span B to A; attach center horse E to D; attach plow to C. K will stand perpendicular to B when all are drawing.

N. B.—Bolts N and P are in line with horses.

Effects of Bluestone Upon Various Plants.

To the Editor "Farmer's Advocate":

In reply to your enquiry re effect of bluestone spraying for mustard upon pea vines, I beg to state that our experiments here and elsewhere show that pea vines are not affected by a two-per-cent. or even by a three-per-cent. solution of bluestone.

On the other hand, potatoes, turnips, rape and beans are somewhat injured by a two-per-cent. solution. Wheat, rye, barley, oats, corn and sugar beets are not injured by this solution. As to the weeds which are killed by the use of this solution, I may say that we found but few weeds readily injured, the most sensitive being shepherd's purse, dandelion, annual sow-thistle, burdock, bull-thistle, Canada thistle, spring sow-thistle, blue weed, stickseed, and white cockle, and flowers of bindweed.

Few of these were killed outright, as might have been expected, from the fact of their having strong taproots or underground stocks. The following were practically uninjured: Hound's tongue, rib-grass, broad-leafed plantain, mallow, couch grass, purslane, catnip, pigweed and chicory.

From the above results we cannot hope to gain much by spraying with bluestone for weeds other than wild mustard. W. LOCHHEAD

O. A. C., Guelph, Ont.

The Value of a Pig Pasture.

The value of a pig pasture can hardly be overestimated. Yet the majority of farmers are keeping their pigs in confined quarters and feeding them high-priced feed and making small profits, sometimes even on the wrong side of the ledger.

According to some of Prof. Day's experiments at the Agricultural College Farm, Guelph, he found that pasture was equivalent to one-third the grain ration in promoting gains. Four and one half to five pounds of meal are alleged as necessary to produce one pound weight in the pig. Then, pasture would be equivalent to one and one-half to one and two-thirds pounds of meal, besides producing healthier pigs.

Pigs do well on a certain amount of bulky food, and when they are growing bone and muscle pasture helps produce it very economically.

If I could have the pig pasture as I would like it, it would be divided into three main divisions, in which the central part would be a permanent pasture, and be the lane to the pastures on either side.

On this permanent pasture lot I would disk in some clover seed occasionally, when the ground was in good shape for such work early in the spring.

On one side of this permanent pasture I would have a piece of fall rye, alfalfa and red clover. If all would not do well, then whatever would. On the other side I would sow a piece to a mixed crop of barley, oats, wheat, peas and rape seed; another piece to corn and rape, and then some pumpkins for fall feed. I would feel that I had made ample provision for the wants of my pigs all through the summer season, so far as the green food was concerned. Of course I should want these divisions fenced off with portable fences, so that when one portion was eaten off, the other would be coming on fresh again.

At one end of the feed-lot, near the barn where the feed was kept, I should like a tight platform, nearly surrounded by a tight-board fence, high enough to shelter the hogs while eating their grain, corn in the ear, etc., from the wind. If this had an evergreen wind-break on two sides of it, say the north and west, so much the better.

Cheap shelter could be provided (as I have this winter) by making a rail pen under the straw stack, with an opening to the south large enough for the pigs to run in and out, and two or three together. Wigwam pens, placed in a sheltered place and banked up with stable manure, might be provided.

The platform should be large enough for the number of pigs to be fed at any one time. It might be made of concrete, but should be raised about a foot from the ground, in order that it might be scraped off occasionally, and flushed off after a rain.

In this way one man might take care of a large number of pigs. If he looks after the details closely he can make some clean money as well. I believe I can sell my barley for 75c. per bushel in the shape of bacon hogs.

In the winter time bulky food can be supplied in roots, clover hay or alfalfa, and silage.

T. G. RAYNOR.

Harrowing Grain.

To the Editor "Farmer's Advocate":

I noticed in your paper a couple of weeks ago a letter from a contributor, rather severely criticising an article that appeared some time previously, suggesting the advisability, under certain circumstances, of harrowing the spring grain after it has sprouted, and even when the blades have appeared above ground. If I understood the writer of the first article correctly, the recommendation was to harrow after seeding on clay land which had been packed by a heavy rain after being finely pulverized, and had baked and crusted when dried by the sun and wind so that the blades could not all force their way through, or had become so bound that for want of air and "elbow room" they could not make healthy growth. Now, under such circumstances I have practiced harrowing with very gratifying results. In one case a field of fall wheat was sown the last of August on a well-prepared summer-fallow; a heavy rain fell a few days after sowing, and the ground got packed very closely; a dry time followed: the wheat came up very thinly and looked sickly. A neighbor advised harrowing the field. I concluded the outlook spelled failure as it was, and I harrowed the field with heavy iron diamond harrows two ways, and had about made up my mind to sow again, so hopeless was the prospect, but in a couple of days, on a dewy morning, I could see green blades shining all over the field; in a week the prospect was entirely changed, and the next summer a crop of thirty bushels to the acre was harvested. And more than that, the timothy seed that had been sown with the wheat came up as thick as hair on a dog's back, and made a splendid crop of hay the year following the wheat crop. After that I was not afraid to harrow a crop, and more than once on clay hills where the grain has been bound by the running together of the fine particles of soil, making the field look patchy, I have harrowed those places with satis-