

mole-hills in the young man's pathway, easily passed and forgotten. And in the later years of life joy at seeing the contentment and happiness of children and grandchildren, in an ever-widening circle, will fill his heart. ONE OF THEM.

The Farmer and Protective Tariff.

To the Editor "Farmer's Advocate":

Agricultural implements are being imported from the States and sold at a price at which the Canadian manufacturer claims he cannot compete. He appeals to the Government to impose a tax on the imported implements. The tax is imposed, the importation is checked, prices rise, the Canadian manufacturer is protected, and the farmer pays the bill. Why does the farmer submit to such an injustice?

Wheat is a staple product, and if anyone wishes to import it he must pay 12 cents per bushel to the collector of customs, and were the production of wheat insufficient for home consumption, the farmer would be protected, for the price of wheat would be increased. But while millions of bushels must be exported to find a market, the price in Canada will be the price in the foreign market, less the cost of transportation, irrespective of restriction on importation. It is a matter of common observation that the price of wheat rises or falls according to the fluctuations of the Liverpool market. Then, while the production of wheat exceeds the home demand no one will wish to import it, except for seed or on account of some temporary or local conditions. There is a tax of 30 per cent. per bushel on the importation of barley, but it is probable there is sufficient barley raised for home consumption, and so the tariff will not benefit the producer.

The importer of butter and eggs must pay 4 cents a pound on the former and 3 cents per dozen on the latter, but the Canadian farmer is a large exporter of both; consequently, except under peculiar and exceptional conditions, his prices are not affected by the duty. The same may be said of other agricultural products which are exported.

The farmer is being deceived. A tariff is placed upon his products as well as upon those of the manufacturer, but it is clear that there is only an APPEARANCE of advantage to him. When he buys his mowing machine, a binder, a plow, a harrow, a seed drill, a horse rake, or manure spreader, he must pay a price which includes a 20 per cent. duty, which is really a bonus to the Canadian manufacturer.

Since the tariff is an indirect tax, the burden of it is but imperfectly appreciated. Suppose a direct tax of \$80,000,000 were imposed annually and the farmers were forced to pay a very large share of it, would he patiently and quietly submit, or would he demand that justice be done?

It cannot be reasonably maintained that the Government requires a revenue of \$80,000,000. Canadians are paying about \$15 per capita for the annual expenditure of the Government, while a citizen of the U. S. pays about \$10, and those tax-burdened countries, Germany and Austria, expend less per capita than Canada. The annual expenditure of the Government has about doubled in ten years. A reasonable reduction in expenditure and an adjustment of the tariff for revenue purposes only would conduce to the general welfare of the country, and would relieve the farmer from the unjust tribute which he now pays to the manufacturer.

Manufacturers are probably the most liberal contributors to campaign funds. Is it patriotism or business? A party expecting large contributions for campaign purposes is likely to feel under obligation to the donors. When the tariff is to be revised the manufacturer will be favored. Protection favors certain classes at the expense of the masses, leads to extravagance, formation of trusts and corruption of Government. Now, while the tariff commission is at work, is the farmer going to vigorously protest, or will he continue to submit in silence?

Grey Co.

A. McTAGGART

Unfavorable Crop Report.

In leading newspapers the crops this year in Ontario are reported "bumper." It may be so in some parts, but not in Huron or Perth. The wheat promised to be excellent to within a few days of cutting, when we had a few days extremely hot, which seemed to cook it. Farmers find that when they come to clean it for seed they take nearly a fifth out of shrunken wheat. Barley and peas are not up to 1903, although hay and oats are very good. The turnips are beginning to rot, especially the early ones; they are covered with lice. What will kill the lice and not destroy the turnip?

W. G.

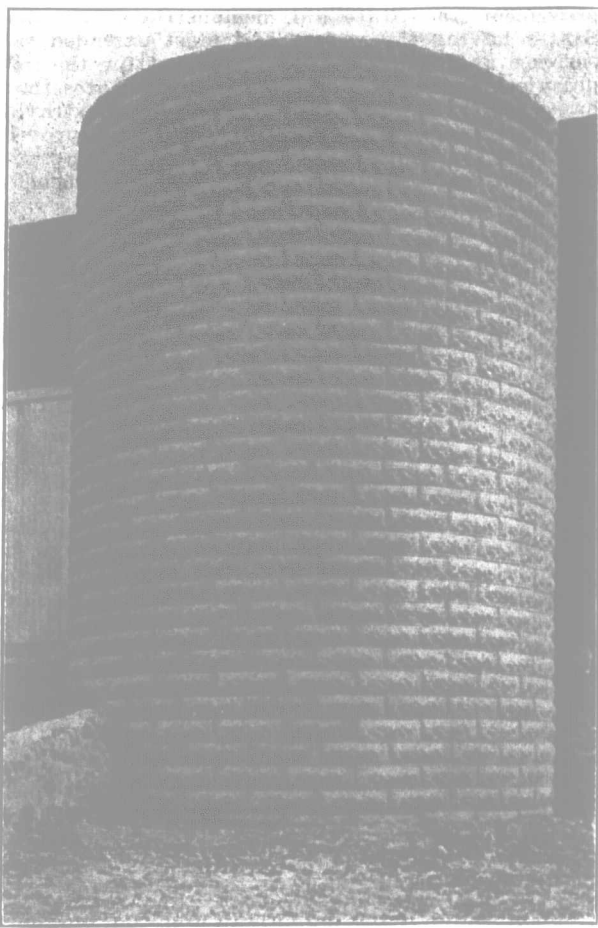
[Note—Kerosene emulsion.—Ed.]

Cement Block Silo.

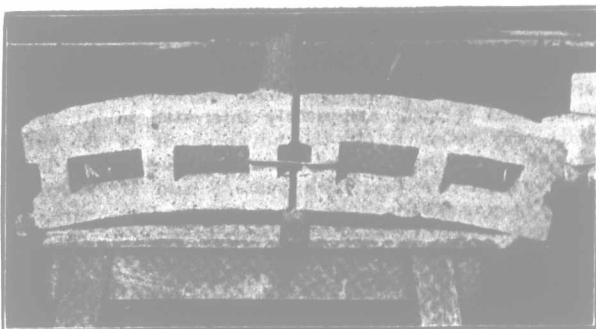
We present herewith an illustration of a new form of the cement silo. This silo was constructed for Mr. John Graper, and was the invention of Mr. Albert Voight, of Ft. Atkinson, Wis. The silo is 29 feet in height and 16 feet in diameter, and is figured to hold 115 tons. Its cost is \$360.

The illustration shows that it is constructed of hollow cement blocks, molded to the desired curve. The form and method of tying the blocks together so as to resist the lateral pressure, is shown in another cut.

So far as we can judge, this is, in many respects, a model silo. If it proves to be all the designer and owner of it anticipate, under the test of time, it solves the problem of a cheap, safe and indestructible silo. The cost per ton of storage capacity is certainly reasonable. The device for strengthening the blocks appears to be sufficient. When laid up the notches in the ends of the blocks are filled with soft cement, which helps materially to make the wall strong. —[Hoard's Dairyman.]



Cement-block Silo.



End View Cement Block, Showing Curve and Method of Applying Iron Fasteners.

Wild Mustard and Bluestone.

Some two months ago I read an article in the "Farmer's Advocate" which led me to believe that bluestone was sure death to wild mustard, alias charlock, alias cadlock, alias Brassica Sinopetrum, etc. Some five years ago I came into possession of a farm on which could be found samples of about every weed under heaven, with wild mustard far in the lead. A five-year rotation was at once started, and by keeping the hoed crop clean I have been successful in thinning out the luxuriant yellow growth, and no doubt the second course of the rotation will practically eradicate it. One one field, however, that had not been plowed in the remembrance of the aged inhabitants, I sowed oats this spring—perfectly clean seed—and was surprised to find a luxuriant growth of mustard springing up with the oats. Think of it! Mustard seed resting underground quietly for over thirty years. Now, I had been working my courage up to the bluestone spraying idea for two years, and the above inspiring article fully determined me to try it. I also wrote to Prof. Shutt, of C. E. F., and his reply was encouraging. I followed his and

your directions implicitly. The mustard browned and shrivelled slightly around the edge of the leaf, and went on growing with renewed vigor. It also browned the oats in about the same proportion, but, unfortunately, it did not increase their vigor, but, on the other hand, made them about a week late in ripening, with a slightly poorer yield. I also sprayed just before the weed bloomed, so it was evidently not too old and tough to be affected. The fault must be with the variety of the weed. It does not follow closely Way's description of the Brassica Sinopetrum, nor, in fact, any other varieties found in his manual. It possesses all the pernicious, tenacious qualities of the Ontario mustard, but is evidently immune to bluestone poisoning. Personally, I am done with spraying, and am fully persuaded that the best way is to keep the hoed crop of the rotation clean and bring in the grain crop only once in the cycle, directly after the hoed crop. I have studied the beast pretty closely, and find that seeds within three inches of the surface will all germinate during the season of the hoed crop, especially as the stirring of the ground by cultivation tends to bring them all within germinable distance of the surface at some time during the summer, none being allowed to go to seed. The next year the ground is seeded down with grain, and as the surface only is worked for this crop, very little of the mustard appears, it having all germinated the previous year. Now, when the time comes to plow again a new crop of seeds is turned up and ready to grow. To handle this batch I plow in August and cultivate during the fall. This allows of some more harmless germination. The following spring the hoed crop is put on, and this effectually cleans out the weed. This method of procedure, I am convinced, is the only way of eradicating our cadlock, etc., and as it interferes in no way with what I consider is the best method of rotation, there is really no extra trouble in cleaning it out. However, if there is really any effective method of killing out these weeds by more scientific appliances than the hoe and cultivator I am willing to try it.

Nova Scotia.

R. J. MESSENGER.

The Drainage of Farm Lands.

An address delivered at the National Exhibition, Toronto, 1905, by Prof. J. B. Reynolds.

There is no question in agriculture more important than that of moisture; in fact, the most important influence on the quantity of yield year by year is the amount of rainfall and snowfall in any given district. The Weather Bureau of the United States has established the fact that in the great corn-growing States the yield of corn varies directly with the amount of rain that falls during June and July. For a period of fifteen years it has been found that where the rainfall is below normal for June and July, the corn yield is also below normal, and vice versa. Dr. Shaw, the Chief of the Weather Bureau in England, has established a similar relation between the rainfall and the yield of wheat. He finds that the yield diminishes by one and a quarter bushels per acre for every inch of rainfall in the previous autumn—September to November. In this instance the relation is the reverse of that established for corn in the States, but the influence in both instances is very marked and very uniform. While this is the case, it is nevertheless a matter of common observation that the yield of crops on two adjoining farms may be very different, while the rainfall is practically the same; that is to say, although man has no control over the amount of rain which falls, yet intelligent agriculture is directed toward controlling the distribution of the rainfall. The amount of rainfall and snowfall may be disposed of very differently, according to the condition of the soil upon which it falls. The water may penetrate the soil very readily and drain out, but little being left behind. This happens when a soil is too porous. Or water may fail to enter the soil in any great quantity, and will run off the surface. This happens with an impervious soil, especially on sloping and hilly ground. The object of soil management is to exercise the fullest possible control over the water supply. Autumn cultivation has for its particular object the preparation of the land to absorb the autumn rains and winter snows, so that the maximum amount enters the soil and the minimum amount runs off the surface. Spring cultivation has for its object the loosening of the seed-bed from the wet subsoil, so that it may dry out sufficiently for germination of the seed; while summer cultivation has for its particular object the checking of evaporation of water from the soil and its conservation by that means. A noted farmer of Ohio once remarked that, given plenty of rain and snow in the autumn and the winter, he could grow good crops without summer rains. What he meant was that he would prepare his soil in the autumn, and would cultivate his soil in the spring and summer, so that he could make good use of the autumn rainfall.

It appears, therefore, that intelligent farming is largely directed toward the control of the water that falls upon the soil. Underdrainage is one of the most effective means toward that control, and Ontario farming has reached that stage where much more attention must be given to this important question of drainage before any further advance can be made in agriculture. In years gone by the attention of the Ontario farmer