

Cheap Money for Underdrainage.

INTERPRETATION OF ONTARIO'S TILE, STONE AND TIMBER DRAINAGE ACT.

Editor "The Farmer's Advocate":

By conversation with various people regarding the Tile, Stone and Timber Drainage Act, I find there is some misunderstanding regarding the same, possibly arising out of my write-up of the Act in "The Farmer's Advocate" about a year ago. The two clauses which give rise to the misunderstanding are as follows:

Section 2.—(1) "The Council of every town, village or township may pass by-laws from time to time for borrowing money for the purposes hereinafter mentioned—tile, stone or timber drainage—in sums of not less than \$2,000, nor exceeding \$10,000, such money as they may consider expedient."

Section 13.—"but in no case shall more than the sum of \$1,000 be loaned to one person."

It would appear, from a superficial reading of these clauses, especially when taken apart from their context, that \$2,000 must be applied for before the township council could borrow money under the Act. Such, however, is not the case, as the by-law mentioned in section 2 (1) is merely a by-law authorizing the reeve to borrow any sum up to the limit named in the by-law. When an application is made for a loan, the reeve may, on the strength of that by-law, borrow \$100, \$200, \$300, etc., as required by the applicant. That is, the by-law, once passed, is good for all loans applied for, up to the limit mentioned in the by-law. During the summer, I wrote the Hon. Col. Matheson, Provincial Treasurer, for a ruling on this point, and the Township of Louth, Lincoln County, also wrote him, and he sustained the interpretation I have now given, with the result that the Township of Louth passed a by-law naming \$10,000 as the limit, although they only had applications at the time for \$2,000 or \$3,000.

The advantage claimed in making the by-law for the maximum limit of \$10,000 is that it costs no more to pass a by-law for \$10,000 than for a smaller sum, and it makes provision, without further expense, for anyone else in the township who might want to borrow money under this Act.

Thus, if a man wanted to borrow \$100 for assistance in tile-drainage, he would apply to the township council. They would pass a by-law authorizing the borrowing of money, after the final passing of which they would issue a debenture for \$100, the proceeds of which they would loan to the applicant.

In case some readers might not be familiar with the provisions of the Tile, Stone and Timber Drainage Act, it might be well to say, in conclusion, that some years ago the Provincial Government, in an endeavor to encourage tile-drainage, made provision through this Act for the lending of money from the Provincial Consolidated Revenue Fund, at 4 per cent. compound interest, to any who might wish to borrow money to aid them in draining their land. The borrower repays the \$100 and interest in 20 equal annual payments of \$7.36 each, although he has the privilege of paying more, if he so desires, thus reducing the number of payments accordingly.

O. A. C., Guelph.

WM. H. DAY.

Improved Farm Buildings.

The accompanying photographs represent the farm buildings of R. P. Hurlbut, Stanstead Co., Que., a native of the Eastern Townships, who, after earning a competency in California, has returned to make his home among old-time friends and relatives. A couple of years ago he bought a small farm at the edge of Hatley Village, and has remodelled the buildings, as the cuts will show, and at the same time has added to his

acres, and brought his farm to that condition in which he is a prizewinner on standing crops, and takes second prize for clean farm and roadsides in Hatley Township, and has this year won a valuable silver cup, given by Mrs. E. Goff Penny in a county competition for the neatest farmhouse and grounds.

One of the views is taken off the street side of his residence, showing the fine lawn and flowers, and the other shows the southerly side of the farm buildings, with a group of young registered Holsteins which form the nucleus of a herd which he intends keeping.

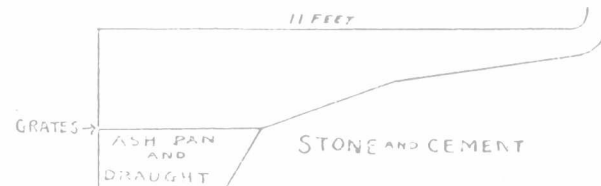
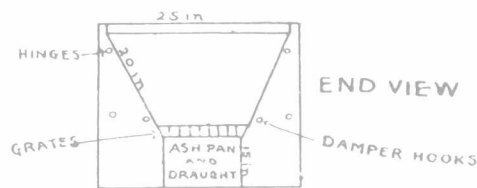
Mr. Hurlbut may be said to be a public benefactor in that he has been instrumental in widening and beautifying the roads in the vicinity of his farm, and his method of farming is an object lesson for good to the other farmers in the neighborhood.

Cement Arch for Boiling Sap.

Editor "The Farmer's Advocate":

As I did not feel like buying a high-priced evaporator for boiling sap, I concluded to build a cement arch on the same plan, so, through the winter we erected a boiling-house, 12 x 24, with a good roof and ventilator, and got three loads of sand and some stones ready. When the warm days began to come, and it looked as though tapping time was near, we got a feed-cooker, and put it in one corner of the boiling-house to heat the water for the cement. I also got some engine grates and hinges to put in as we built.

I think we mixed the cement about one to six, excepting near the fire a little stronger; and if I were building again I would get about fifty fire-



Cement Sap Arch.

bricks for sides of the fireplace, as I think they would give more permanency to the arch. After building, we banked up the arch, and kept a fire in the cooker to keep out the frost, and watered the arch with warm water until it was well set. So we had it ready for the sap when it came. It has stood one season all right, and I don't see why it won't stand many of them.

We built ours, of course, to fit the pans we had, but it could be built any size. For the hinges, we got four flat pieces of iron, with an eye in the end, and set them in as we built, and corresponding pieces for the doors, and riveted on sheet iron cut the right size. We also put in two hooks to hang the front damper on.

In making the arch, I left an inch bearing for the pans about an inch below the top; and if you have a good foundation, so the arch will not spread, it will not be necessary to have cross-irons for the pans.

PETER HUGHES.

Oxford Co., Ont.

New Theory of Deteriorating Yields.

Professor H. L. Bolley, of the North Dakota Agricultural College, has evolved a new theory to account for the deterioration in wheat yields from prairie soils. The Professor noted three facts: (1) That newly-broken prairie land in the Red River Valley does not, as a rule, produce as large yields or as plump wheat as old land; (2) that new prairie land rarely produces as large yields as new soil did ten or twenty years ago; (3) that overworked summer-fallows or soil lavishly manured may not produce as large a crop as the mechanical condition of the soil or its known abundance of fertility would seem to demand it should produce.

So he began experimenting, and has reached the conclusion that decreasing yield is due to specific diseases which cause root rot, and produce in a crop all the characteristics which would seem to indicate that the soil on which it was grown was worn-out for wheat. The experiments further indicate that the diseases may be prevented, and the yielding power of affected soils restored.

The remedy suggested is worth noting. Rotate the crops, and give the fungi a chance to die out; sow plump seed treated with formaldehyde before sowing; avoid rendering available excessive supplies of nitrogen in the soil; give the soil thorough cultivation, and have the seed-bed thoroughly compact.

The results of the experiments upon which is based this new theory of deteriorating yields will be published shortly in bulletin form, when an opportunity will be afforded of forming opinion as to the Professor's conclusions regarding the existence of a specific root disease. In the meantime, however, the remedies suggested will be found to be pretty nearly what are recommended by agricultural authorities for successful wheat-growing, and are worth practicing on that account.

THE DAIRY.**A Year with a Dairy Herd.**

\$25 IN PRIZES FOR TWO BEST ARTICLES FROM EXPERIENCE.

Competitions being the order of the day, why not one for dairymen? And what better subject than "A Year With a Dairy Herd"? For the most instructive and stimulating article on this subject received from a bona-fide dairy farmer, who tells in his article how he has handled his herd during the past twelvemonth, together with the results in milk, butter or cream production, and also the profits thereof, we will give a prize of \$15.00; for the second best, \$10.00, and for such others as may be published will allow usual contribution rates.

Articles should contain reasonably full particulars as to breeding, season of parturition, housing, winter care and feeding, milk yields; individual milk records, if kept; summer care and feed, with notes on any supplementary summer feeding practiced; total year's production; average per cow; cash returns, and estimated profits. Calculate cost of feed, with prices allowed; labor cost of care, feeding and milking, and of separating milk or buttermaking, if this is done on the farm; cost of stabling; interest on value of herd and dairy equipment; year's depreciation, if any, etc. On the other hand, the quantity and value of manure produced should be added to the returns.

Correspondents are warned to detail their actual experience, and not to take liberties with the facts, as statements will be investigated and deemed untrustworthy.

Essayists must comply with usual composition rules; must write plainly in readable English,



Farm Buildings of R. P. Hurlbut, Stanstead Co., Que.