1866

selves

ld be

in de-

itages

es be-

more

ne gas r, the

aken.

ermit-

as ac-

of the

, the

most

Com-

cost

pro-

under

allest

capi-

gines,

acces-

lding,

1,867,

for

fit, if

less be-

con-

resent

o be re-t is

AY.

AND.

, in

on on

times

ed of

the

n the

Old

called

ation

ong ''

e hot

th a

e de-

n the h of been

land

lown.

ow a

de-

n is

enefit e hoe

part

land,

culti-

eping

g be-

best

tion,

eneral

Con-

now

and

acre

most

using

owed

as. A the

ty of

rman

. We

and),

also

every

fod-

gives

writ-

with

arms CK.

les ''

ER.

THE FARMER'S BATH-ROOM.

Editor "The Farmer's Advocate":

Having noticed in a letter in a recent issue a reference to the rarity of the luxury of a bathroom or a bath-tub in farmhouses, I am led to give my experience in installing this convenience in a house built two years ago. We put in the attic an oblong wooden tank, 6 feet long, 3 feet wide, and 3 feet high, made of two-inch matched lumber, lined with zinc; and about the center of the roof we put 16 feet of galvanized-iron trough. with a flat side, about a foot wide, to fit under the shingles, and with a pipe leading to the tank: while, from near the bottom of the tank, is a cast-iron or lead pipe, leading to the bath-tub in the bathroom below, from which, by means of a tap, the water is drawn into the tub, while the used water runs to a sewer pipe, and to a cesspool in the back yard, a short distance from the house. Hot water is provided by means of an iron heating tank, connected with the kitchen stove, a water pipe being installed in the fireplace of the stove for that purpose, and a tap supplies hot soft water at the kitchen sink. This tank is, of course, supplied by a small iron pipe from the attic tank, and the weight of the water from above forces the hot water to the bathtub, where it also is drawn from a tap. While we have a force pump at the kitchen sink to draw water from the cement cistern in the back yard, and connected by a pipe with the tank in the attic. which in a time of drouth we can fill from the cistern, we have so far always had enough water in the tank, caught by the trough in roof, to supply our needs for bathing and hand-washing. And when the tank gets filled, as, of course, it often does, an overflow pipe carries the surplus into the eavestrough, whence it runs into the cistern. An overflow pipe from the cistern carries the surplus to a hole in the ground, filled with stones and gravel, where it soaks away. A manhole in the top of the cistern is covered by a cement cap, which is covered with earth, and grass grows over it, as upon all the yard. The only difficulty with this arrangement is that, in case of the water supply in the attic tank failing, there would be danger of an explosion at the stove, but this can be guarded against by a little watchfulness, and carrying a few pails of water to the attic tank, if one has not a force pump.

The cost of such a provision of rain water for the house need not be very much, though I am not prepared to state the cost in our own case, as this arrangement was included in the whole contract, for which tenders were received. But it will readily appear that, even if one did not see his way to go in for the complete outfit in a house that has been built, he could at least instal the trough in the roof, the tank in the attic, and the bath-tub. And, if a room were not available for the tub, it might be possible, by a slight rearrangement of partitions, to provide a small room for the purpose. With a large enough tank in the attic, $\hat{\mathbf{I}}$ see no reason why the convenience of a lavatory or closet might not also readily be provided in the bathroom, as is common in

city houses. A water service in the house from a well, by means of a windmill to a tank in the barn or house, or elevated outside, is quite practicable, at a moderate expense, and is a great saving of proved. labor; but soft water is such a luxury for bathing Now, that the wonder is that so many well-to-do farmers, who could well afford to provide this comfort for the family, are content to be without it. Hoping that these hints may be helpful, and that others may contribute suggestions along the same

or similar lines. Middlesex Co., Ont.

PREFERS LATE-SOWN MANGELS TO TURNIPS.

Editor "The Farmer's Advocate" In your issue of March 26th, under the heading, "Seeds to Sow, and How to Sow Them," see more than one advise sowing mangels early, as soon as the land is dry. I may say that, in my experience of thirty years growing mangels, I find that, when sown late, I have invariably a good crop. For over twenty years I sowed early, and was often disappointed in the stand, and, when they did come, the weeds had the start of them, which entailed a tremendous amount of Since I have delayed sowing until the last of May, I have most of the weeds destroyed before sowing. The land should be worked from early spring; treated as for a turnip crop, with frequent cultivation until after the 24th of May, or even the first of June. Sow either in drills or on the flat. The rows can be traced in a few days, when the cultivator may be run close to the drills. Cultivate frequently throughout the sea-In the fall, the crop will be at least onefourth more than of turnips. They may be harvested the same as turnips, but earlier, cutting the tops off with hoes. They are more easily stored, there being less danger from heating. Stock prefer them to turnips; hogs, cattle and mature sheep eat them readily, without pulping. If dairymen tried this manner of growing mangels. they would discard turnips entirely, and get rid

of the turnipy flavors that we hear so much about. I would much prefer handling a crop of mangels to a crop of turnips, and the amount of feeding value of the crop of mangels would exceed that of turnips. I prefer the Yellow Intermediate sugar beet or mangel. The Large Red is not so relished by stock, and is harder to harvest

W. S. FRASER. York Co., Ont.

JOINTER PLOWING AND AUTUMN DRILLING OF ROOT LAND.

Editor "The Farmer's Advocate"

The object in sending the photograph of plowing, reproduced in connection with this article. is to try to improve this line of our work, which is a very important one. It is generally admitted we are going back in plowing. When driving through the country, we do not see plowing equal to that of our forefathers, but the opposite—a slipshod, "hog-rooting" style, as my father used to call it when we made a poor job.

We have now a two-furrow riding plow introduced, with which some farmers say they can make better work, but I fail to see it. As yet, the plow is not built on wheels, and I do not think ever will be, to make as good work as a walking plow, well held.



Jointer Plowing.

On farm of H. K. Hamilton. (Photo by Oscar Stroh.)

I do not advocate fancy or even standard plowing, but good, practical work. The work shown in this picture was done with a jointer plow, skimmer and colter, six and a half by nine. The skimmer is run deep enough to turn down all the grass with a good heavy press to make it firm and solid, and it will be the same in spring as when it was done.

Now, there are different ways of improving this work. For instance, addresses at Institutes and other public meetings, and writings in your valuable paper; but I think the best way is by having plowing matches, either by single fields or whole farms. This gets the boys interested in the work. It was at the first match I attended that I received my first lesson in plowing, from John McNabb, Waterloo Co., who, in his day, was a hard nut to crack at a plowing match. think, if plowing matches were continued to-day, young farmers would get many good lessons, and the plowing of our country would be greatly im-

Now, I would like to hear what others have to say on this important question. We know plow is the first implement used in tilling the soil, so why not make the first step right?



Land Ready for Beet Crop, 1908.

Work done by H. K. Hamilton. (Photo by Oscar Stroh.)

I shall give a brief description of how these drills, which are shown in the other picture, have been worked. I adopted the following system of preparing land for roots some years ago, and have always found it to give the best results:

The land is prepared in the fall. First, it is plowed deeply, and as early as possible after harvest. Manure is applied and worked in by disk harrow, then it is cultivated so as to work the manure and earth together by harrowing and rolling it. The last thing in the fall, just before it freezes, it is ridged. The drills shown in the picture were frozen, making a rough surface, which is in its favor. Sometimes it is necessary to go

over these drills before sowing. They should be cultivated between the drills as deep as possible afterwards.

Now, my reasons for saying that this is the best method are: First, we get them sown earlier, and thus no catch is missed; second, we have the frost mold, which is the best seed-bed we can possibly get; third, there are practically no weeds, compared with spring cultivation; fourth, the drouth will not affect them the same. remain solid, and not baked, which is essential

in growing any roots. We have grown sugar beets for the factory, and also feed beets and mangels in this way; and when this method has been tested with spring cultivation, the yield has always been ahead, and I have seen it nearly doubled.

H. K. HAMILTON. Waterloo Co., Ont.

CHEAP VENTILATION AND GOOD ROOT-HOUSE Editor "The Farmer's Advocate":

While there are several systems of ventilation that will no doubt give good satisfaction if properly placed in stables, yet the majority of farmers halt-perhaps with good reason-when the proposed scheme is going to cost \$100 or more. When building, last summer, the writer put in a system of ventilation that caused practically no expense, and has given fairly good satisfaction. My wall is built of cement hollow blocks, 9 x 10 x 32 inches. I chiselled off the projection on the outside corner of one block, and the inside corner of another, placing one in the third course from the bottom, and the other in the second course from the top, directly above, which gave a flue about 31 inches square in the center of the block for circulation of air. While I never used thermometers to test the temperature at different parts of the stable, and although my stable has not been more than half full since Feb. 1st, the stable never gets stuffy, nor coated with frost on the inside, except on the doors; but, on the other hand, feels fresh as the air outside, without any signs of frost. If cement-block manufacturers would order a number of 4-inch tile, cut in 24in. lengths, which, I presume, could be easily done when being made, they could be built in the center of the blocks, through the outside of some and the inside of others, which could be matched when building, and would look better than a hole 21 x 9 inches, although some will claim that if the fresh air does not come in at the very top of the wall, and the foul air be taken off right at the floor, there will be a blanket of warm air at the ceiling above the fresh-air ducts; also a blanket of foul air on the floor below the air escapes. My opinion is, if you have intake and outlet airholes in sufficient numbers to give a free circulation, it will air the whole stable, from floor to ceiling. One thing is certain, if we trust to doors and windows for ventilation, it can scarcely ever be gotten without drafts. And one other thing is certain, stable ventilation is necessary. after trying this simple system of my own for one severe winter, and finding it satisfactory, I would recommend it to anyone wishing to ventiate his stables at small cost. Whenever the wind is blowing hard from a certain point, it may be necessary to stuff up some of the holes along that side of the stable with straw, which is an easy matter.

While I am writing, allow me to say a few words about the root-cellar I built. It is 14 ft. 6 in. by 25 ft., inside measurement, built under a double driveway, and is built of cement throughout, excepting four street-car rails that are placed right under where the wagon wheels will go. The walls are built of the same hollow blocks as mentioned above, with a window in each end (doubled Besides using the windows for filling, I have a slanted chute off the barn floor, under the barn door-sill, direct into the root cellar. The driveway or roof of the root-cellar is built of cement, 5 inches thick, reinforced with steel. Over this I put about 6 inches of earth. This cellar I lowered about one foot below the cow-stable floor, which gives an average height of over eight The roots have kept perfectly, without feet. danger of rotting any timbers which are liable to let horses break through and cause trouble some R. H. HARDING.

day. Middlesex Co., Ont.

POLE IN MOW TO DISTRIBUTE HAY.

Editor "The Farmer's Advocate":

Now is the time to plan for saving labor during the coming season. We may say that, at haying, the past two years, we have used a pole to spread the horse-fork bundles, and consider it worth almost an extra man in clover. The pole is laid on the upper tie-beams, directly under the track, and is safer to be tied on with a piece of By moving the pole a short distance to either side, the hay can all be put to the opposite side, when desirable. The hay also keeps better, as there is no hard bunch in the center which is usually mouldy, and which is so hard to avoid when the bundles all drop in the center of A. JAMIESON. the mow.

Victoria Co., Ont.