week afterwards with the two-horse cultivator. When the corn gets too high for this implement to be used, we have found it well to continue the work for another month, using a one-horse cultivator with small teeth. Conservation of moisture is the main purpose of late cultivation. The average rainfall during the growing season is not nearly sufficient for the production of maximum crops. Two hundred and seventy tons of water are required for each ton of dry matter in corn. The essentials in the production of a first-class crop of corn, after a good stand has been secured, are, abundance of plant food in available form, and moisture conserved. We used to cultivate to destroy weeds; we now cultivate for cultivation's sake and to liberate plant food. It will not do, as is the way and saying of some farmers, to let the weeds grow till they get up well, and then go in and give it a good ripping up. Moisture is lost under such treatment, and there is much hurtful cutting of roots.

Successful growing of corn calls for a much higher degree of intelligence than does the culture of small grains.

Weed Seeds in Feed Stuffs.

Editor "The Farmer's Advocate":

It was pleasing to note, in your editorials of the 18th inst., a reference to the prevalence of noxious weed seed in mill feeds. It is at all times an important subject, intensified, however, at present by the scarcity of feeds in the East, and the surplus of low-grade wheat and large export quantities of oats in the West.

There is an act concerning the composition of millfeeds, is there not? I believe I read it in some bulletin, but, needless to say, found it impossible to fathom the seas of "whereas" and "wherefore's." Could you print this act, if it exists, as briefly and clearly as possible?

A case that recently came to the writer's notice might cause some to pay more attention to the character of their purchased feeds. While in a local feed store, a neighbor returned a cwt. of bran as not fit for use. On examination, it was astounding to note the percentage it contained of wild oats, numbers never even crushed, with the fuzzy hull and tail as perfect as when they came from the separator. It might be added that the dealer accepted the bran, and had it sold again in ten minutes. Is there a law that might have prevented that second sale, or have compelled the labelling of it to show its grade? Surely, with bran retailing at $26, and shorts at $28, the farmer should have some practical protection.

Middlesex Co., Ont. R. E.

"The Farmer's Advocate" of June 29th, 1911, (see page 1092), contained an article headed, "Millfeeds Must be Free from Noxious Weed Seeds." The article was based upon a memorandum issued by the Department of Inland Revenue, under authority of the Governor-in-Council, and contained the following specifications:

"Bran is a product of the milling of wheat or other grain, and contains not less than fourteen (14) per cent. of proteids, not less than three (3) per cent. of fat, not more than ten (10) per cent. of crude fibre, and must be free from vital seeds of any of the noxious weeds defined by the Governor-in-Council under the 'Seed Control Act.'

"Shorts or middlings is the coarser material sifted out from the products of a second treatment of the grain by crushing the coarsely-ground material that is sifted out from the bran after the first grinding, and contains not less than fifteen (15) per cent. of proteids, not less than four (4) per cent. of fat, not more than eight (8) per cent. of crude fibre, and must be free from vital seeds of any of the noxious weeds defined by the Governor-in-Council under 'The Seed Control Act.'

"Chop-feed is whole grain of one or more kinds, more or less finely ground, and contains not less than ten (10) per cent. of proteids, not less than two (2) per cent. of fat, not more than ten (10) per cent. of crude fibre, and must be free from vital seeds of any of the noxious weeds defined by the Governor-in-Council under 'The Seed Control Act.'"

These amended provisions were effective on June 7th, 1911, and the Act is being administered by the Inland Revenue Department. Since the regulations came into force, the officers of the Inland Revenue Department have been collecting samples of these grain products as put on the market by different manufacturers, and they are being tested as to weed-seed content in the laboratory of the Seed Branch of the Agricultural Department. We believe that A. McGill, Chief Analyst of the Inland Revenue Department, Ottawa, is in a position to send copies of the new regulations to any persons applying for them. We suggest that everybody interested write him at once for the regulations, and also acquaint him with full particulars of cases where millstuffs are sold containing viable seeds of noxious weeds. The weed-seed abuse must be checked. Twenty-seven dollars a ton is too much to pay for ground wild oats, and when the oats are not even ground to the point of destroying the germ, the possibilities of loss are enormous. It is time to kick.

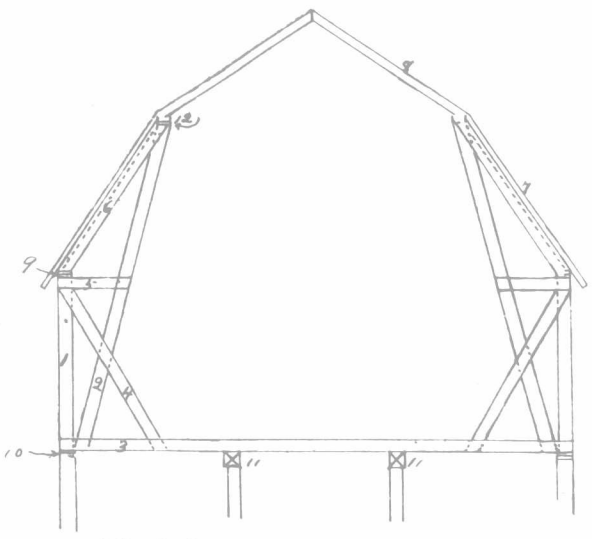
Light Plank Frame for a Narrow Barn.

Editor "The Farmer's Advocate":

Thinking that some of the readers of "The Farmer's Advocate" may be interested in smaller barns than we have been describing of late, I am presenting a very simple, and at the same time cheap and strong plank-frame, well adapted to any building up to 34 feet wide, not having higher posts than 12 feet. This size, or smaller, will be suitable to the farmer on a 50 or 60-acre farm, or possibly the settlers of New Ontario or the West may make use of the construction, as, even where timber is plentiful, the saving of labor will appeal.

In erecting these frames, no raising is necessary at all, as the side posts are set up, and the long, inclined braces running up from the cross sill to the top of the posts are spiked and bolted into place, and the outside girths or nailers are spiked to the edges of the posts the same as in the ordinary plank frame that has been often shown in "The Farmer's Advocate." The sill and plates are the same, except the purline plate, which is made of two planks doubled and joints broken, with the top end of the lower rafter cut with a shoulder on it to extend under the outside edge of the purline plate, and so act as a support.

While the sides are being covered in, the purline posts are being set to a line stretched from end to end of the frame, and the short tie from the side post to the purline is bolted into place, and it is at once apparent that the frame is like the ordinary plank structure, except that it lacks some of the roof timbers, the roof support and the sub-support; also, the struts under the purline plate are not used.



Plank frame for narrow barn.

The main ties, that run from the cross sills up to the posts, and hold them from spreading, are the most important, and require care in securing them.

Provided the sheathing is nailed on horizontally, the spaces between the posts may be studded up like a balloon frame, and depend upon the boarding for its bracing, or, better still, the diagonal method of boarding may be resorted to, and a very well-braced frame will be the result.

The drawings will explain the idea quite well, and if the readers desire a bill of material for a frame of this kind, and think that help is desirable, I will be pleased to give further assistance through these columns at any time.

This frame, though looking light, is quite strong enough for any building up to the width I gave as a limit, and is so cheap and so simple that I am sure that the smaller farmers will make use of it.

EXPLANATION OF CONSTRUCTION.

The timber marked 1 is the side post, made of two planks 2 x 10 inches, with a 2-inch space between them, and No. 2 is the purline post, made the same as the side post. Both of these are secured at the bottom by the two cross sills (3), one on each side of the posts.

No. 4 is the inclined brace, and runs up from the cross sills to the post, and ties the frame from spreading; this is composed of two planks 2 x 10 in., one on each side of the posts. No. 5 is a short tie to hold the top of the main post from springing out, and is made of two planks 2 x 10 in., and No. 6 is a single plank that is [illegible] to the top of the main plate, and runs up and is secured to the side of the purline post.

Both main and purline plates are made of two planks, with joints broken (9 and 12).

No. 11 shows the girders, made of timber, or built up with planks.

[illegible] short explanation should make [illegible] clear, and the side [illegible] the same as the ordinary [illegible] the boards [illegible] when the method I [illegible] may be used.

Got His Head into the Corn-Growing Game.

Prof. A. E. Chamberlain, in opening his address at the recent Ontario Corn Show, referred to himself as an old Essex boy, he having been born and brought up near Leamington. Continuing, he said that, "The sun doesn't shine on a spot in the American continent that is capable of greater development than South-western Ontario. To maintain the fertility of our soils, we must get our heads into the game. The effect of corn-growing is to have better wheat, better oats, and better crops of every kind. There is a saying in some sections over the line that, for every extra bushel of corn per acre produced, the land increases $1.00 per acre in value. Among the benefits that come to farmers indirectly from the culture of corn there is this, first, that it stirs up competition. When such men meet they are constantly making comparisons between each others' corn crops, or between their own and those that they have seen by the way. This sort of thing incites to greater effort to excel. And again, it results in insuring rotation of crops. The field for corn must be changed. This means that other crops must be changed to other fields, too—all of which is very much to the farmer's interest.

"You want to select your seed corn early, then hang it up and dry it well. As I said before, get your heads into the game. There never was a man who could earn a dollar a day from there down (putting the side of his hand to the bridge of his nose); we have not yet reached the limit of what can be earned from there up. Most people read wrongly that passage in Genesis which says of man that "in the sweat of thy face thou shalt eat bread." They think it means in the sweat of your back, or the sweat of your wife's back, or the back of your hired man. They forget that it it is the sweat of the brow, brain sweat, that is meant.

"A couple of agricultural professors in the Western States who talked corn at Institute meetings, on strolling out one day to see some of the cornfields about, observed one that seemed to be specially good. Going over it, they found it to be as good as it looked—in fact, about the best piece of corn they had ever seen. It had been well planted and cultivated, and on that account was thrifty; but what was specially noticeable was the even stand. Three in a hill, three in a hill—almost without exception throughout. Getting over the fence into a neighbor's field, a very uneven and poor stand was found. There would be four in one hill, one in the next, then three, and then two hills without any, and so on. While the first field had 93 per cent. of a perfect stand, according to their estimate, the second had but 53 per cent. Every time the second man went to do a day's work in his corn field he was earning little more than half of what was possible, while the other man would earn 93 per cent. of full pay for every day's work he did. That is what it would mean, viewed financially. Going up towards the house from the poorer field, the professors were met by the owner—a perfect gentleman, to judge by his dress, though he was literally eating (not chewing) tobacco. He was quite able to explain why his corn looked so poorly. He had planted it on the 12th of May, he said, and the next day there came a very heavy rain. This ran the soil together so badly, that when it dried it hardened so hard that many of the sprouts were simply choked; they couldn't get through. On after inquiry, it was found that the good field over the fence had been planted on the very same day. The owner of this other field was then hunted up. The professors found him to be a little Dutchman, about five feet high, who looked as if a heavy weight had come down on him and flattened him at both ends and bulged him out a little in the middle. He had a pair of black, beady eyes, though, that showed intelligence. When asked how he came to have such an excellent stand of corn, he said: 'Well, you see, I go in February and March and test my seed ears.' Didn't wait till May, you see," put in Prof. Chamberlain at this point. "'And I only geep de ears dat shrout strong and gvick.' You see," said Prof. Chamberlain, "that he was getting his brain to work. 'Vell, one day afterwards, when it was raining, and I could do notting else, I go and pick out of dese the ears with big grains, and I put dem to one zide. Den I pick out the ears with little grains and put them to oder side. And den dose with medium-size grain, and put them by themselves.' Why didn't you buy a grader? said his visitors. 'Oh,' said the Dutchman, 'a grader cost seven dollar!' Den one day ven it vas raining like de teuce, I go to my implement shed and I shell my corn and put it in three bags. And den I take some out of one bag and put it in the corn planter, and I turn dat wheel a hundred times, and den count the grain dat dropped. And I fix [illegible] place and turn again. And ven it drop just [illegible] hundred gernels I take out dat put him in [illegible] bag and tie him all up. Den I put in oder [illegible] and turn again one hundred times, and ven