

### Other Plank Frame Enquiries.

In your paper of February 1st I notice a design of cyclone plank frame barn by Mr. Gilmore, and another by Mr. Lampman, somewhat similar. Now, I would like to ask Mr. Gilmore, or Mr. Lampman, through your paper, for a little more information concerning same. Would this frame work in a barn 50 x 60 feet, with 16-ft. floor across center? Would such a barn not require very long planks or necessitate much splicing? What is your system of getting correct lengths of purline posts, long braces, roof support, etc.? Is everything cut on ground beforehand, then put together and raised in bents, as timber frame? How are rafters joined at purline plate in Mr. Gilmore's design? W. L. M.

Your questions are similar to those of another reader, but, to avoid confusion, I will take some of yours and give you direct answers to them, while others are gone into quite deeply in the other case.

I think you can get the long planks from the lumber companies, or have them cut in your local mill during the winter.

The roof support in your barn will be 2 x 12 in. x 37 feet, and should not be spliced. If it appears rather limber, it can be stiffened with a piece of 2 x 6 in. spiked on the lower edge, and extending from the purline posts up to the collar ties at the top of these supports.

The purline posts will be 2 x 10 in. x 32 feet, and, like the roof supports, may be stiffened by spiking a piece of 2 x 6 in. stuff from the floor to the bottom of the roof support, on the inside edges of the post. This ties both planks of the post together, and renders the whole post much more rigid while raising, but adds little to the strength of the frame when up. However, on large spans, requiring long planks, I use these, but on the ordinary frame they are not necessary.

These few timbers should be easily procured, but if you find it impossible, you can build a frame like a timber construction, and make the posts rise from the floor straight to the roof, and build them of planks 12 feet long, spiked together, with joints broken. This is not so cheap as the truss bent, but saves time over the framing of a timber frame.

The rafters will be 18 feet long in both roofs, and of the same rise and run as that given in the answer to "Farmer's Son."

I get all my measurements from carefully-prepared drawings which I make to suit the building, and which show the length and size of every timber. Then I mark one piece to exact measurement and give it over to the men with the cross-cut saw, and have them cut the required number of that particular piece for the frame. This system hurries the job along, and if a good man is on the job to cut to exact marks, the frame is soon done, when the pieces are all carried and the bents spiked together, leaving one man to follow, boring holes and bolting up the main joints. The bents are built in the same position as the timber bents are; that is, the first to build is the last to raise.

I make my roofs of the same pitch as a self-supporting roof, and put the rafters together in the same way, with boards nailed on both sides at the elbow joint—all of which is done before the day of raising; so, as soon as the purline plates are in place, I can have the rafters shoved up into place, and, as both upper and lower go up at the same time, my raising is soon over. The top joints of the upper roof are nailed by a good active carpenter, who runs up strips of boards that have been nailed across the back of one of the roof supports to form a ladder for this purpose, and nails the nearest on each side first, when a narrow board or two is nailed across these two, and is allowed to extend away across several others, and on this he reaches these, and secures his boards and the tops of the rafters as he goes. This is continued until all the rafters are secured and the upper rafters are all on, without a scaffold being required.

The above method is very strong and the most speedy that can be used. This makes the roof into a self-supporting structure, with the added strength of the purlines, and, I believe, places my design of plank frame a step or two stronger in existence.

I think I have gone into the subject in detail, and hope you can now go right ahead with your frame; but if in the slightest doubt, please point, take no chances, for I am sure the above will be willing to help you. A. A. GILMORE.

Huntingdon Co., Que.

### Another Time Card.

Anyone who gives the matter serious consideration would not hesitate to say that the manufacturer who neglected to keep books was on a short road to ruin. So much depends upon knowledge of his business, knowledge of the intricate parts and the minute details that he must of necessity keep books in order to get a grasp of these details, without unnecessarily burdening his mind with them.

In what way does a manufacturing institution differ from ordinary farm business? A farm is nothing less than a big manufacturing establishment, manufacturing not one article, but rather many and varied articles. Then, if the manufacturer of one or two articles finds it necessary to keep books, how much more so the farmer; yet, what percentage of our farmers keep any track whatever of their business through the use of books or other records?

This article is not intended to explain or give in any detail the plan or method by which a set of farm books may be kept. It is intended, rather, to incite the ordinary farmer in bookkeeping through encouraging him to keep track of doubtful parts of his farm work, the parts which he may believe do not pay him.

The simplest method by which this end may be attained is through the use of the time-card. If any farmer will but use the time card on two or three of his crops, or any particular sidelines of his business, about which he may entertain doubts, it would be hard to persuade him to do without the time-card in the future.

The drawing of a time-card given herewith practically explains itself.

By the use of this card, it will be readily seen whether or not the returns from a crop or side-line on the farm warrants the expenditure of as much time and energy as it is receiving. The best form of time-card that can be used is perhaps the fortnight card. By means of this, a person can lessen the labor of posting (carrying into the accounts) by posting frequently, whereas the posting of a full month's time at once may be somewhat tedious.

By placing the names of the crop or side-line upon the left-hand margin of the time-card and extending columns towards the right, and then placing the dates at the top of the card, extending columns down to the foot, the card then shows everything in plain sight. The card does not have to be turned sideways (as it would have to be if the names of the crop or side-line were placed at the top of the card), in order to see which column is devoted to the crop time is to be entered against.

These time-cards show exactly the amount of time spent upon any certain line of farming. While the accounts that are sent in from the merchants will include seed bills for grain crops, and also items for fertilizers for these, while the accounts from the miller would include chop, bran or other feeding stuffs for stock, and when entered up in the account, along with the time posted from the time-card, will show the exact outlay that the crop or side-line has necessitated; for the time-card not only shows the time of the man, but also the time spent in team-work and on other items that would rise from the expenditure of time.

As a result of this time-card, the past season has induced the writer to do away with two crops on his premises, and to increase the capital invested in two other side-lines. Whether a full set of books is kept, and the output of time or capital for the entire farm, or just for certain branches, the time-card will make the records accurate, and are not intricate or expensive.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total Hours Spent By
Alfalfa																
Potatoes	1h1			1h2	1h1			1h2					1h4			14
Berkshire Pigs		1						4								
Apples				1h2						1						
Ponderosa Tomatoes	1h1			2									1h4			2
S.K. Tomatoes	2	1	4			7	2	14					1h3			6
		2	1	4									3			5
																15 1/4

The "h" in the columns means that a horse was used; the figure beside it means the number of hours it was used; \* on the first, the horse was used on the potato patch 6 hours, a man worked 6 hours; † on the fourth, one man worked 4 hours, or two men 2 hours each.

In charging up the totals, it will be seen, in the case of Ponderosa tomatoes, that in the 15 days there were 6 hours of the horse's time, and 24 hours of a man's time spent on that variety of tomatoes.

### Government Roads.

Editor "The Farmer's Advocate":

It seems to be a settled fact that the Federal Government intends to spend a large amount of money on public highways throughout the Dominion. It is said that operations will be soon started in Ontario, if satisfactory arrangements can be made with the Provincial Government.

The suggestion now is to run a main artery or national highway along the north shore of the lakes and the St. Lawrence River, and the supposition seems to be that the products of the country north of this main artery will gravitate and flow down to and along this great highway.

Do the conditions of vehicle traffic warrant such a supposition? The railroads are the carriers of the great bulk of farm produce to the consuming centers, and the farmer delivers his produce to the nearest station, making as short a haul as possible. What attraction would this national highway have for the farmer, who could deliver his produce five or ten miles to the north, and get just as much for it? This road would benefit a few farmers on each side, but there would likely be long stretches where it would run pretty close to the water, and in that case there would likely be but little farming on the south side to benefit by it. It would likely be a safe assertion to say that ninety per cent. of the farmers of each county through which it would pass would receive little or no benefit from it.

There is a class, however, which would benefit immensely by such a road, and that is the automobile class. Those who are out for pleasure usually follow the best roads, and such a road as would likely be built under the auspices of the Government would be a paradise for autoists, who would most likely monopolize it, as they could tour from one city to another for hundreds of miles.

There is no need of a main artery running east and west for the farmers' benefit, because farmers' traffic is all local, and the railroads look after the longer hauls. Such a road would require millions to build it; whereas, if this money were spent on leading county roads, it would benefit every part of a county, as nearly every farmer would have a chance to use such roads, and they would also serve as an incentive to have all roads built up to a standard.

The roads are for the farmers first, and it is to be hoped that the farming community will see the folly of spending millions on a trunk line which will be but little benefit to them as a whole, and demand that the money shall be spent where the greatest number can derive some benefit from it. Many counties in Ontario have refused aid from our local Legislature in helping to build county roads where they would help everyone, and now it looks as if they will be compelled to help to pay for the construction of highways which will be of no use whatever to ninety per cent. of those who use roads throughout the counties.

J. STONEHOUSE.

Ontario Co., Ont.

### Cement Water Tank.

Editor "The Farmer's Advocate":

As a constant reader of your worthy paper, I noticed, in your issue of Feb. 15th, subscriber's inquiry regarding elevated water tanks. Having some experience with cement tanks, it may be of use to some of your readers.

I put in a water system, with cement tanks, four years ago. My plan is to build on the level, or in the ground, when possible, if the ground is higher at all, you can have your tank in the ground in proportion to the fall you have to the barn. I will try to explain my system; others could change the depth in the ground, according to the fall they have for the water. I have three feet of a fall, and built my tank at the well three feet in the ground. The tank is 12 feet long, 4 feet wide, and 3 feet deep (inside measurements).

The bottom and side walls are 6 inches thick, clean gravel and cement, 5 to 1. The covering of tank is 4 inches thick, is all plastered inside and out with fine sand, and cement 2 to 1. We pump into this tank every day from deep well, with windmill; the water does not freeze enough to form ice.

The water is conveyed about 100 feet from well to barn in 1 1/2-inch gas pipe placed three feet under ground, and comes up in a similar tank built 16 inches in ground against outside wall of founda-