

clover. The extent of the patches increases and the leaves droop and die. If the affected plants are examined the branches at the crown will be found to be swollen and, under a microscope, eelworms and their eggs may be seen in the tissues.

Fungus Disease of Clover (*Sclerotinia trifoliorum*).—The general symptoms of this disease are similar to those produced by the eelworm, but on close examination of the plants, black wart-like excrescences may be observed on the collar between stem and root. As this disease only affects legumes, the remedy suggested is to reap land, known to be affected, free of leguminous plants for several years.

(To be continued).

### Fertilizer with Mangels.

Editor "The Farmer's Advocate":

Having received several letters from readers of your paper, requesting further information about my experiment on mangels, which was contained on the back cover of your Christmas Number, I shall be greatly obliged if you will grant me space to reply through your columns.

As the main particulars of the above experiment were mentioned on page 2227 of the Christmas Number, I shall give the data of another similar experiment which I carried out in 1913 on another part of my farm, in order to check the results of 1912.

There were three plots in the test, each being one-quarter of an acre in size. All plots got a dressing of manure at the rate of ten tons per acre.

Plot 1 was the check, plot 2 was fertilized at the following rate per acre: 400 lbs. acid phosphate, 120 lbs. nitrate of soda, and 140 lbs. muriate of potash. Plot 3 got the same treatment as plot 2, except that no potash was applied.

Owing to the very dry season the yields were not as large as the previous year, but the increase, which the fertilizers produced, was larger. Plot 1 gave 420 bushels per acre, plot 2, 900 bushels, and plot 3, 520 bushels. While the plot without the potash gave only 100 bushels more than the check plot, the plot with the potash gave 480 bushels more.

On May 1st I mixed the fertilizers in the correct proportions and applied them the same day, scattering them broadcast by hand from a pail. I might mention that in the 1912 experiment, that being a very wet year, I did not apply the nitrate of soda with the other fertilizers, but put it on just before thinning the young plants. In last year's experiment all the fertilizers were applied on May 1st, and the mangels seeded on May 18th. The effects of the fertilizing were noticeable from the time the plants came through, and plot 2 was ready for thinning several days ahead of the others.

Based on the price per 100 lbs. laid down here, the cost of the complete fertilizer would be about \$10.00 per acre, as follows:

400 lbs. acid phosphate at 80c. per 100.	\$3.20
140 lbs. muriate potash at \$2.30 per 100.	3.22
128 lbs. nitrate of soda at \$3 per 100.	3.60

Of course this amount would not all be charged to the first crop.

Halton Co., Ont.

JOHN A. RIGGS.

### Working out Parcels Post.

The Postal Department of the Dominion Government is gradually working out the complete system of the new Parcels Post soon to take effect. A number of the details of the Parcels Post policy have been worked out, there are many points, including the rates of postage, yet under consideration. The zone system is being adopted, but it is not placed strictly on the basis of so many miles around a given post office. The nine different provinces are so situated geographically that they will form the natural zones for the working out of the system, and the rates will be graduated on the basis of a certain rate to a province once removed, and a still higher rate for one still further away, having regard to the relative position of the provinces to each other. However, there will be one local zone of twenty miles around each post in Canada, irrespective of provincial boundaries. The limit of weight has been fixed by the Parcel Post Act at eleven pounds.

### Doesn't Like to Miss it.

Editor "The Farmer's Advocate":

My subscription has about expired, and as I do not wish to miss any copies, nor to do without it, I enclose postal note for \$1.50 to pay for it for another year. "The Farmer's Advocate" is O. K. Long may it continue to be truly a "Farmer's Advocate." Your Christmas Number was fine.

Lincoln Co., Ont.

JOHN D. McLEOD.

### A Plank Barn.

Editor "The Farmer's Advocate":

The barn illustrated herewith is designed to meet the requirements of the average 100-acre farm carrying a mixed stock. It is very simple in construction, being formed of two-inch plank in various widths requiring no notching at joints as in the old style of framing. This structure is designed to withstand great wind pressure, which is a great asset in a country which is fast becoming tree bare. It is easily erected, the timbers being light compared to solid framing, and practically any man familiar with the use of ordinary tools can make and with a little help can erect it. The bents are built on level ground, and raised the old way, starting at one gable end and working back towards the other. There being no obstructing posts or barn floor,

tion for 14 cows, calf pen and bull pen or calving pen, with the best dimensions shown regarding stands, gutters, walks, etc. Sanitary stalls are shown on plan, these being, in the writer's opinion, much more sanitary and economical than the old wood ones. Litter carrier track is also shown, this, of course, is left entirely with the farmer. The horse stable provides for four stalls and one box stall with passage through to cattle, giving easy access to each and more convenience in feeding. Horse stalls are five feet wide and nine feet deep, the sizes being inadvertently omitted.

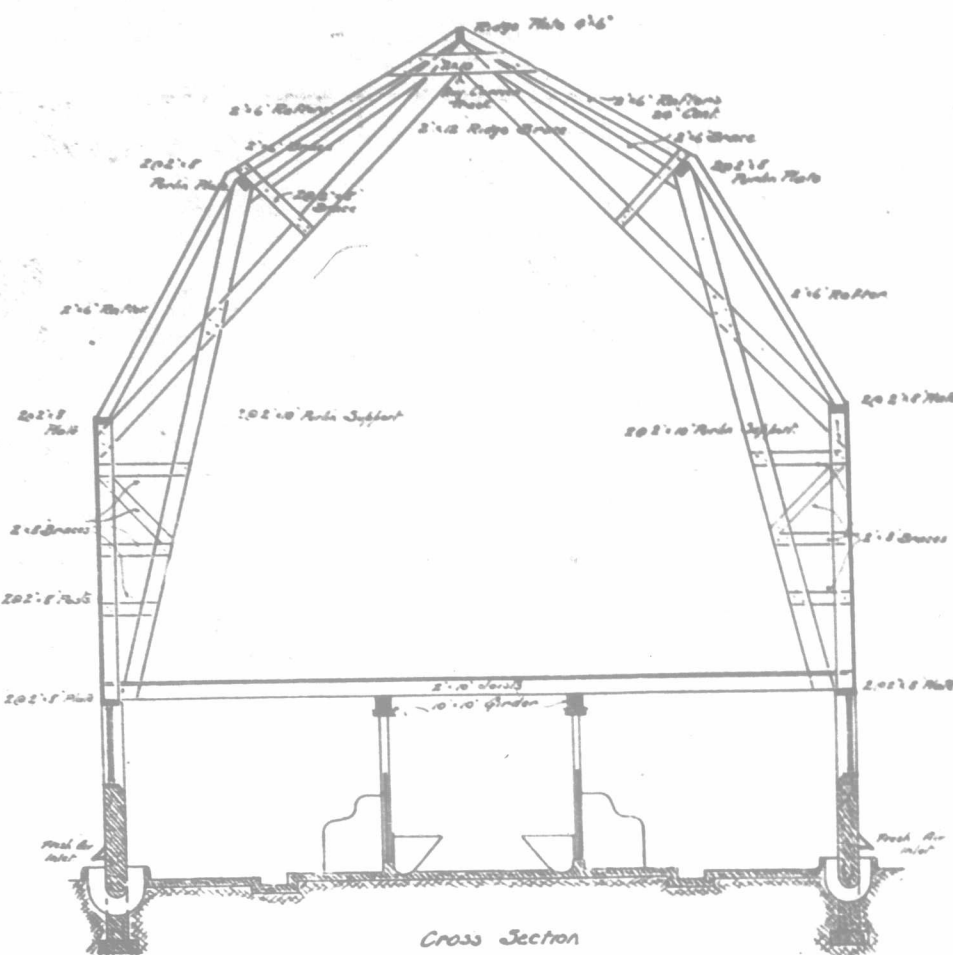
Wellington Co., Ont.

JOHN CHRISTIE.

### Consumers Should Co-operate.

Editor "The Farmer's Advocate":

I was very much interested in Peter McArthur's experiences with co-operation. It seems to me he has come to the right conclusion. No matter how much the producers may co-operate (short of an extensive combine) they cannot hope to raise the price except by improving the quality. Because the consumer has the advantage of the chance to buy from producers who are not co-operative and are consequently selling cheaper to the middleman. True, the producers can do a little co-operating and shipping in car lots, thus getting a low freight rate and guaranteeing honesty in quality and packing. But if they sell in car lots they will have to ask less than in smaller quantities, say 100-lb. lots, which is the minimum for freight shipments. Seemingly it is the consumer who will benefit most by co-operating, and why they don't do so instead of continually talking about the high cost of food is more than I can understand. If co-operation will pay at all it seems to me it should pay best for the consumers to organize. If they were organized they would simply have to ascertain where they could buy a carload (or smaller quantity) the cheapest whatever commodity they needed, have it shipped and distributed immediately. But perhaps difficulties would arise in connection with this distribution. Probably some of the members would not like waiting till a carload was needed. Then those taking large

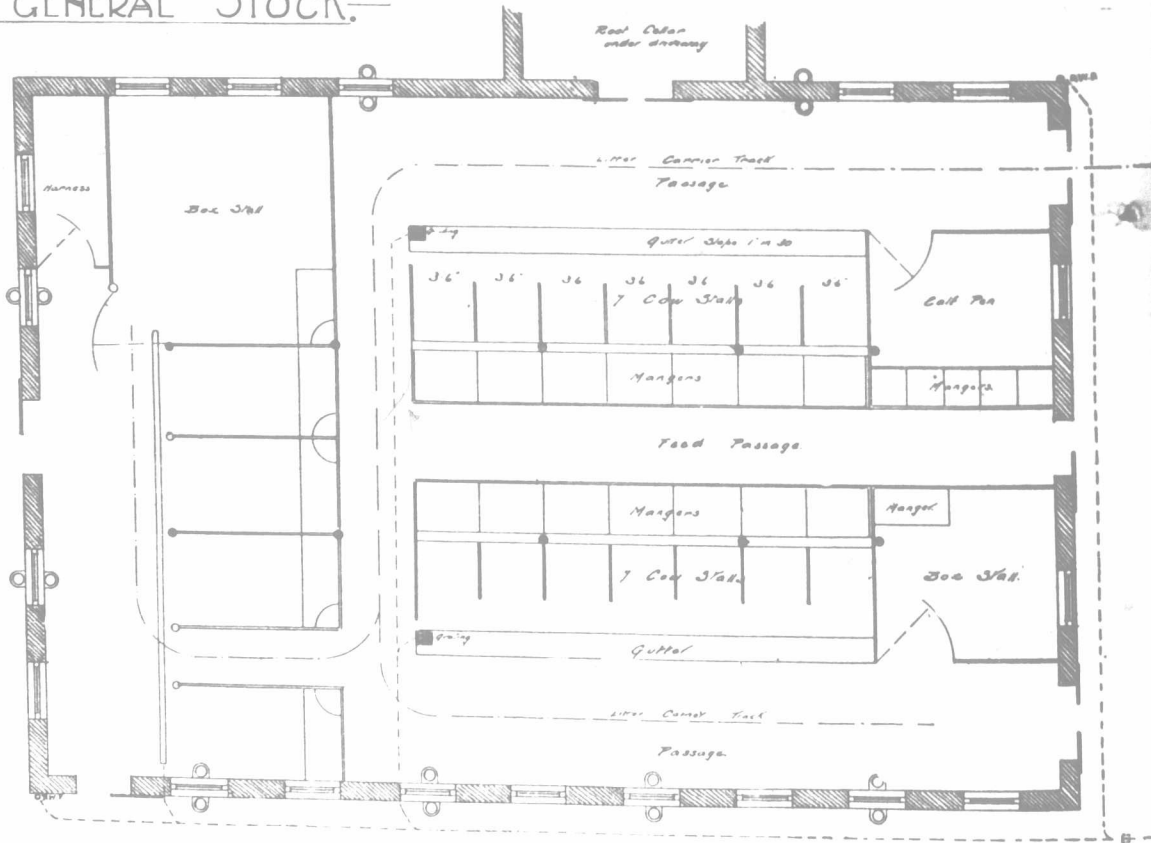


Cross Section of Plank Barn.

allows of some freedom in drawing in loads of hay. This barn, of course, can be designed having end lift, doing away with the heavy pulling going up to the barn floor. Fresh air inlets and foul air outlets are shown of drawings in the most modern manner of ventilation. An up-to-date system of drainage is also shown, all drainage being run to a cesspool, placed at the farmer's discretion, sufficiently far from barn and wells to provide against any risk of contamination. The plan provides accommoda-

tion for 14 cows, calf pen and bull pen or calving pen, with the best dimensions shown regarding stands, gutters, walks, etc. Sanitary stalls are shown on plan, these being, in the writer's opinion, much more sanitary and economical than the old wood ones. Litter carrier track is also shown, this, of course, is left entirely with the farmer. The horse stable provides for four stalls and one box stall with passage through to cattle, giving easy access to each and more convenience in feeding. Horse stalls are five feet wide and nine feet deep, the sizes being inadvertently omitted.

### DESIGN OF BARN FOR GENERAL STOCK.



Barn for 100-acre Farm.