

these favors from the government. We cannot see how any organization can act independently so long as it is in receipt of public moneys. It is the universal experience of all such unions that they bow to the wills of their political masters.

The ADVOCATE, having dared to criticize the mismanagement of the Model Farm, received its share of abuse. Mr. R. F. Holtermann, an ex-student, moved that the representative of the ADVOCATE be turned out of the building. His motion, although not seconded, received an outburst of applause. If the motion had come from an ordinary member, we would have passed it unheeded as being a mere gush of youthful enthusiasm, but Mr. Holtermann holds an important office in the Union; he would always be taken for a man and often for a gentleman. There are organizations supported by their own funds, and we do not deny them the right of holding their sessions with closed doors; but we most emphatically demand the right to enter the sittings of any organization supported by public funds. We deem it one of our most serious duties to look after all agricultural expenditures, and if the members of the Union cannot see the matter in this light, they should take counsel from abler authorities.

Items from Manitoba.

Mr. Samuel Grigg, proprietor of the Grigg House, London, Ont., whom we recently interviewed concerning his experience in Manitoba, furnishes us with interesting and reliable items about that Province. In 1881 he visited the west with the hope of recruiting his health, and being favorably impressed with the country, he purchased land from the C. P. R. in the township of Elton, near Brandon. He paid \$2.50 per acre, with a rebate of \$1.25 per acre for improvements, and commenced farming operations in 1882. He says that unimproved land in his locality would now sell rapidly for \$6 to \$7 per acre, and improved land would bring \$10 to \$15.

The land is rolling, untimbered prairie, the soil being a vegetable loam with a clay subsoil; the native grasses, nearly a dozen different varieties, are luxuriant and nutritious, and make a superior quality of food for dairying or fattening purposes. The hay mowed in the sloughs will fatten stock in winter without the addition of grain or other food. For breaking the prairie, heavy teams of horses and oxen are in good demand, the former bringing \$300 to \$500 per team, and the latter \$125 to \$150.

Last summer he had 225 acres under crop, but has now 300 acres broken. His last year's yield was 30 bush. per acre of wheat, weighing 64½ lbs. per bush.; oats 60 bush. per acre, and his barley was a fine crop. His wheat was Red Fyfe, although the White Fyfe and the Golden Drop also do well in that locality. The Maine or Potato oat is the most popular variety. All this work was performed by two men, two boys, one yoke of oxen and two span of horses. Spruce and poplar wood for fuel is obtained from the Government free, but has to be hauled 20 miles, and brings \$4 per cord in Brandon. Good coal from Medicine Hat can now be had for \$8 per ton.

In the Chater market, where he sells his products, wheat brings 74c. per bush.; oats average 25c., but he has sold a good quality for seed for 32c. The frost, which came last season on Aug. 23, did considerable damage, but this was unusually early, it not being usually expected before Sept. 7-10. Wheat sowing commences about April 20, and seeding is usually over by May 10. Seeding can be safely begun before the frost is out of the ground. Farm laborers can readily procure \$25 per month in summer, and \$15 to \$20 in winter. He considers that any industrious man with \$1,000 capital can make an excellent start in Manitoba. Fruits have not yet been sufficiently tested to form an opinion with regard to them.

In speaking of the trade in Brandon he informs us that the average receipts of wheat at the elevator for three months were 10,000 bush. per day, the highest receipts for one day being 19,000 bushels.

Mr. Grigg has great confidence in the future of Manitoba, and thinks that existing drawbacks will in time be overcome. He speaks highly of the healthfulness of the climate, and his own health has very materially improved since his residence in Manitoba.

Cheap and Simple Hand Seeder.

The accompanying illustration represents a convenient device for sowing seeds. It consists simply of a cylindrically shaped tin can, such as those used for canning fruits and vegetables, and can be had at any grocery store, to which is tied a piece of strong brown paper in the shape of a cone. The upper end of the can is open, but the bottom is pierced with several holes of different sizes. Plugs are made to fit into these holes, and if the seed to be sown is small, a plug of corresponding size is taken out in order to allow the seed to drop into the drill through the paper; if the seed is large a large plug is taken out.



This can is usually of a size by which it can be conveniently grasped by the hand, and the attached brown paper should be of such a length that the person sowing the seed can walk along beside the drill without stopping, the point of the seeder reaching near the ground. The seeder should be constantly shaken as the sower walks along, and the seed as it is heard rattling against the paper is the indication that the machine is working properly. It is surprising what a large quantity of ground can be gone over in a day with this simple arrangement, and there will be no complaints about aching backs.

PRIZE ESSAY.

Criticisms on the General Purpose Barn.

BY FRANK HOWELL, ST. GEORGE, ONT.

The two important points to be considered in building a barn are cost and convenience. Which of these is the more important depends on the extent to which the former may be affected by the latter, and the amount of capital a farmer may have to invest in this particular line. Following these two points, and subject to one or both, come size, shape, durability of material, etc. With regard to the shape of the barn under discussion, we know that a circular barn will give more room than we can get from any other shape with the same amount of wall. Following closely upon this comes the octagon, and we find that even a square barn has the advantage over one of an oblong shape in this respect. For my own part, I would prefer an octagon to a circular barn, as angles can be constructed more cheaply than circles, and they are more convenient in some respects.

With regard to size, I would much prefer confining the basement of the main barn to the shelter of the majority only of the stock, and such implements as a farmer might have occasion to use in all kinds of weather, and to which he could attach the horses without leaving shelter, such as buggies, cutters, etc. The smaller buildings should be built so as to serve the double purpose of effectual shelter for the remainder of the stock and implements, and the protection of the barnyard (which should always be on the south side of the barn) from too much exposure to the winds from the east or west. They could be built in direct communication with the larger barn, making it possible to feed all the stock without going outside; and, if the hand-car be a necessary article, the track might continue from the main barn to the farther end of the smaller ones, although the bulk of the food for the smaller stock (excepting any fodder which may require to be cut) could be deposited just where it would be most convenient to be thrown in to the stock. By this arrangement the barnyard could be accessible from each of the stables or pens, which is as it should be. The poultry-house could have a yard at the south, and also on the east and west sides if required. The sheep could have a dry, open shed in one of the buildings facing the barnyard, which would be quite sufficient for

them; the pig-pen could also be in the same building, and a few extra stalls of some sort. The building on the opposite side of the barnyard could have one end for implements, and the other end might be open on the south and the side opposite to the barnyard, and be used for sheltering wagons, sleighs, or other implements which might be used almost daily.

But any ideas which may be thrown out in this essay on the arrangement of stables, etc., are to be confined to criticisms of the plan given in the illustration of the model barn. With regard to the adaptation of this plan to the system of boiling the food in winter and soiling in summer, I would state that we need only consider the latter point. It has been shown by actual experiments that food loses a certain amount of its nutritive value in the process of cooking; and, if this be true, and no advantage in cooking be found to counter-balance this loss, then the cooking must be condemned. Of soiling, however, I would take a more favorable view. The idea of soiling seems to be growing in favor, and it would be necessary to discuss this subject here, were it not for the fact that any plan of the barn which suggests itself for this purpose is just the one required for feeding fodder in the winter. In favorable weather, whether in summer or winter, the cattle should have their fodder out-doors. Let me specify what I mean by "favorable weather." There are days, even in winter, when the cattle are more comfortable outside than they would be if inside. When the air is warm, and the sun shining brightly, it is a luxury for them to get the benefit of the fresh air; and the benefit which they will derive from this source will more than repay any loss of food from trampling it under foot. I have seen horses shivering in the stable when it was quite comfortable on the sunny side of the barn. This was in a common frame stable, but, although a stone stable is warmer, it is also damper. A favorable day in summer would be when not too hot, and the flies not too troublesome. But by all means give the stock the benefit of the sunshine, which is so conducive to health.

Now as to the means of getting the food to the stock. As before stated, your plan should answer for either soiling or winter feeding. As the fodder is above the cattle in the winter, so it should be taken to the barn floor in the summer; and, by all means, let the food go directly to the mangers. Why handle it twice, when once handling will do just as well? The stables for the cows and horses should be in such a position that a space directly over the mangers may conveniently be left clear in order to have trap doors in the floor. These trap doors should be just wide enough to cover the tubes leading to the mangers, and they may be made of such a length as to be easily lifted by a ring fastened in each one. The tubes should be about 2½ x 2 ft. at the top, and about 3¼ x 2½ ft. at the bottom, this shape giving the food a better chance to work its way to the bottom. Each tube of this size will serve for each two head. Those for the cows should have no bottom, but should have a partition below in order that one cow may not disturb another; those for horses should have a bottom, and should have only a small hole in each side, just large enough for a horse to reach his nose in and get a good bite. This is a great preventative of waste, and is also a clean way of feeding.

Now comes the question of water. Right here we have one instance where the comparative importance of cost and convenience depends upon the amount of capital at the disposal of the farmer. I would infer from your illustration that you would have the cistern below the level of the ground, and carry the water from the pump to the stock by means of pails. If a farmer had much stock to water in this way it would incur a great amount of labor; but, by investing more money, he could have this arranged in a very convenient way. In the first place, I would have a large tank placed with the bottom about a foot or two above the ground, and in a part of the basement where it would be most out of the way. At a distance of two or three feet from this tank I would place a smaller one, with a pipe of some sort leading from it, below and level with the