

any manner suitable to the circumstances of the farmer, which cannot be said of any ordinary plan. It is not undesirable to have the pigs in the same building, for farmers would then learn how to keep down the stench, which is the most valuable part of the manure, and the suppression of foul odors is necessary for the health of the animals. Any amount of shelter can be provided by planting trees or building a high board fence wholly or partly around the building. If the ventilator is in the way of the horse-fork, it need not be built up through the centre. The plan, to a large extent, obviates the desirability for a horse-fork. Circular eave-troughs would be more expensive, foot for foot, than straight ones, but a much less number of feet would be required. The sheep can be kept near the temperature of the open field, if necessary, by placing their shed at a northerly or westerly exposure, leaving no trees or close fence for the protection of their open yard. The water from the roof would be less than from a square barn, because a smaller roof would be required to cover the same quantity of stock, which is an argument in favor of cheaper construction; but no farmer would ever think of building a large barn in order to get enough rain-water for his stock.

We cannot agree with our essayist in his plans for the water tanks. One of the great objects of our plan is that, by sinking the cistern into the ground, the water can be kept at nearly the same temperature all the year round, which is of greater importance than the saving of labor in pumping; but we agree with him that it would be better to convey the water to the stock through pipes than by pails. A water trough in the yard would be sufficient. A wind-mill could be used for pumping, especially if water could be pumped into the cistern from adjacent sources in cases of scarcity of rain water. For cows during the milking season pure cool water is very essential, and if a supply from adjacent creeks or springs can be pumped or drawn into the cistern before the dry season sets in, the water will be improved both in temperature and quality. We are pleased to find that our prize essayist favors the feeding of stock out of doors in favorable weather, for such is more congenial to their health and hardiness than too much confinement—especially when there is plenty of sunshine without excessive heat or biting winds. We do not agree with him that manure should always be fermented: fermentation makes it more active but less durable, and the care required in fermenting it without loss of fertilizing material is often greater than the gain. With wide passages, wide doors, and a capacious ventilator, more light can be secured than in a majority of ordinary stables.

It would occupy too much space for us to enter into comparisons between round and cornered barns, but we will set the reader on the track by which he can make his own estimates. Take Mr. Murray's barn, an illustration of which appeared in our January issue. Its size is 111 by 54 feet, or $111 \times 54 = 5994$ square feet. This would require 324 feet of wall, or, the wall being say 8 feet high and 18 inches thick, there would be $324 \times 1.5 \times 8 = 3888$ cubic feet of stone. Now compare this with a circular barn having the same number of square feet, and you will find that the diam-

eter will be nearly 87 feet; for $87 \times 87 \times 0.7854 = 5945$ (nearly). But this will only require $87 \times 3.1416 \times 8 \times 1.5 = 3280$ cubic feet (nearly) of stone, or a saving of 608 cubic feet. Stone masons now charge here 75 cents a cord for laying stone walls, so that

$$\frac{3888}{16\frac{1}{2}} \times \frac{75}{1} = \$176.25,$$

which would be the cost of building the wall under the rectilinear barn, and

$$\frac{3280}{16\frac{1}{2}} \times \frac{75}{1} = \$149.08,$$

which would be the cost of building the round wall, or a saving of \$27.17 in favor of the latter, besides a corresponding saving in lime, sand and stone, the 75 cents per cord representing the cost of the labor without the material. But this is not yet all: Granting that the spaces for doors and windows are the same, the size of the shed has yet to be subtracted from the round barn, and in addition to all this, the round will hold more stock and the conveniences will be much greater in every respect. There will also be a corresponding saving in the timber, lumber and other materials used.

A great deal has been said in favor of octagon barns, and certainly they are a great improvement on the four-cornered shapes, but why not go a step further in the way of saving money—that is, build a round barn? It is certain that round barns are more suitable for large farms than for small ones, but we now leave further calculations to be made by each farmer who intends to build a barn.

PRIZE ESSAY.

How Should the Farmer Treat his Hired Men, and how can he Employ them most Profitably?

BY S. A. LEIDMAN, BINBROOK, ONT.

Perhaps there is no question relating to agricultural pursuits on which farmers have a greater diversity of opinion than on the question now before us, and yet it is a question that is very seldom discussed, either through the press or by the fireside. Every man thinks—or perhaps he does very little thinking about it—that he can manage his hired men without the advice of anybody, and consequently every farmer has a separate way of treating his men. Some farmers treat their hands much the same as they do their teams. They feed them and work them, without even noticing them or speaking to them, except to give them their orders and see that they work about fifteen hours per day. Others, we are sorry to say, actually despise their hired men, and when meal time comes, place them in a corner to eat by themselves, or make them wait till the family have finished, and then eat the fragments that remain; but happily such men are few.

But how should they be treated? We will try to answer the question, and in the first place I would say to the farmer, let your hired men know that you are "boss," because if a man finds his boss lets him do just as he likes, he will soon act according to his own fancy, and do his work in his own way, perhaps not at all, in spite of the expostulations of his master. Still, while you deal firmly with him, do not be forever growling at him and snubbing him, for a man naturally recoils from such treatment and becomes defiant, obstinate and

morose. Do not make him work an unreasonable number of hours per day. Of course there are times when a crop of hay or grain is standing out and a storm is at hand, when it becomes necessary to work an hour or so longer; but such cases are exceptional, and for them we make an allowance. But when a man habitually works his men from daylight to dark, and perhaps long after dark, we do not wonder that his men flare up and leave him.

Another frequent cause of broils between farmers and their men is found in the chores that men are asked to do, such as feeding pigs, and milking after their day's work is over, and we hold that it is unjust for a farmer to ask his men to do much of such work after having worked hard all day, and if a farmer cannot afford to keep help enough to do such work, he had better not keep so much stock to attend to.

If there should be a spell of wet, stormy weather, give your man some inside work to do, or if you have no such work that he can do, let him have a day's rest. It will not hurt him. By no means send your man to work outside when the weather is unfit, for it is hurtful to your team, and it may give the man some lingering disease that will cling to him through life. Speak kindly to your men and treat them respectfully. It will pay you, for there is nothing that will go farther with them than a few kind words accompanied by respectful treatment. If he is to work a team, give him the charge of it, and he will take a pride in keeping it in good condition, especially if the team is a good one and some neighbor is trying to keep his team looking better than his.

If work should not be very pushing and he should wish to have a day for pleasure, let him take it, and he will return feeling fresh and willing to work diligently for a month afterwards. Perhaps he would like to have a horse to attend some tea-meeting or concert, for young people, whether men or women, enjoy these things, and rightly too. If so, let him have one occasionally, provided he uses it well, as you can readily see by a little observation next morning. Should he desire to have part of his wages before his time is out, do not refuse him, as he may need the money, and do not, in a dispute about a lost day or some trifling affair, try to retain any of his wages, for what is a small sum to you may mean a great deal to him.

Chat pleasantly to him about the current events and upon agricultural topics, but do not tell him much of your private business or of the business of your neighbors, for you do not know what might be the end of a few thoughtless words spoken to him. Make an agreement when hiring him that he must not be out late at nights—say after ten o'clock—except in a few exceptional and occasional cases, and you will find it to be beneficial to yourself and him. He will be better prepared for the morrow's work, and he can spend the evenings in reading and self-improvement. You should have a supply of good reading matter in the house, and allow him to profit by it. By giving him some such book as Whitcombe's "Manual of Agriculture" to read, he will not only be profited himself, but will perform his work more intelligently, and thus profit you.

Take him to church with you, for he has a soul as well as you have, and he will enjoy a sermon as much as you do—and "What will it profit a man if he gain the whole world and lose his own soul?"

If you wish to make your men profitable, we would advise you in the first place to engage none but a first-class hand, even if you have to pay him considerably higher wages than you would a "plug," for while there is nothing that pays the farmer better than a good hired man, there is nothing that pays him worse than a poor one. You can tell by the general make up of a man pretty nearly what kind of a worker he will be, and when you do stumble on a good one you had better capture him. If possible, engage him for a year. When you engage for six or seven months, it is just through the busy season, and there is no time for any improvements on the farm, and consequently the farmer who does so is always "behind with his work." On the contrary, when