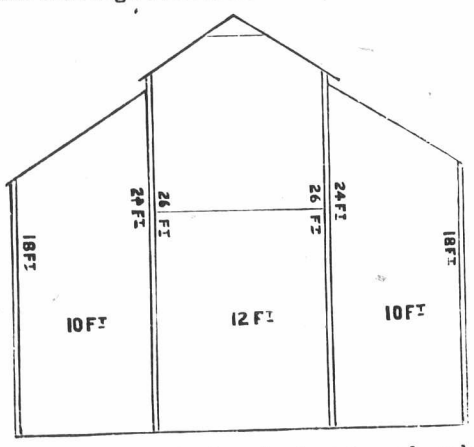
Scotland that is most flattering to producers, and assuring to shippers. At the same time these being shipped *via* American railways and from American seaboards obtain better and cheaper rates, and more prompt delivery than from Canadian ports. Freight rates on export cattle are equally favorable to American shippers, and the advantage that Canadian cattle enjoy in British markets is often entirely overbalanced by the extra rates charged from Montreal over those from Boston. Again, every season has a repetition of buying and selling space, and Canadian cattle feeders and shippers too often lose the profit of a rise in the British cattle markets by being enforced to pay double rates for space. The fact is there is nothing so unsatisfactory as the present shipping accommodation, and as all our hope of future success depends upon an effective transit service for our agricultural products, we see no chance of a change for the better until the Dominion Government see fit to take this matter in hand. What the Danish Government has done for Denmark in her wonderfully developed butter trade, what those of Australia and New Zealand have done in meat and butter, Canada deserves at the hands of her government. Not in any one line, but in the whole transportation of her agricultural products, and without the assistance from some such source she must decline instead of develop in a trade to which she has a natural right.

Storing Hay.

As haying time advances, again comes the consideration, How shall the hay be housed? Stacking hay is wasteful and takes up entirely too much valuable time at the busiest season, and if stored in the grain barn it occupies the space required by grain, and also becomes injured by dust from threshing.

In order to overcome these disadvantages and to make ample room, I thought of building a cheap hay barn in which the work of storing is most easily performed, and where it is convenient to be got at during winter, and where no loss of quality would be effected. (An end section of this barn is given in illustration.)



Now, to build, I took six telegraph poles thirty feet long, placed them four feet in the ground in pairs twelve feet apart one way, sixteen feet apart the other—this to form what may be termed a drive-way through the centre. Then to form the wings of the building three shorter poles were placed on each side ten feet from, and directly opposite the first poles. These shorter posts are twenty-two feet long, four feet in the ground, forming the wings eighteen feet at the eaves. Thus the hay barn, or barrack, is thirty-two feet square, a drive-way twelve feet wide through the centre and ten-foot wings on each side. Scantling sixteen feet long are spiked from pole to pole, twelve feet from the ground, parallel with the drive-way, and ties twelve feet long are also spiked, running across this drive-way six feet higher up, or eighteen feet from the ground. Again, plates for the wings are spiked to the sides of the poles another six feet higher and twenty-four feet from the ground, and the top plates spiked two feet higher for which to place the rafters for the middle space or drive-way. As the wings are boarded down to eight or ten feet from the ground, the first scantling is ten feet from the ground, another fourteen feet up, and the plates eighteen feet, or at the top of these wing posts.

By building in this way it is an easy matter to scaffold in order to spike on the higher ties and get up the necessary timber for the roof. As the spans are short and the roof light, two-by-four rafters are all that is necessary.

The board roof is built of good lumber, running up and down with the rafters, across which strips are nailed to receive the roof boards. A very thin board, three inches wide, is placed beneath the boards where they come together, then nail the boards in the centre. This will make them a little hollowing. By capping the cracks with strips four inches above, the roof will be found to be perfectly waterproof as long as the lumber remains sound. A short tie is nailed a short distance down from the peak to hold the horse fork track and strengthen the roof. Braces should be nailed diagonally across from heel to point under the rafters, as the strips will not hold the roof as stiff as sheeting. A facing board is nailed one inch from each end rafter to admit the gable boards which slip in the groove thus formed. At the tie below an extra scantling is held by long staples; the outside scantling is left loose and held like the cross scantling in a double gate. The boards that form the gables have cleats nailed on the inside, rest on the tie, and are then readily taken down when required to run the hay in without removing a nail. When finished, the building is boarded within ten feet from the ground all round, which is sufficient, as the hay can be taken out and moved away in sections and need not be left exposed.

The advantages in storing hay by this method are the cheapness of building, the convenience, for a horse fork and track work as well as in a barn. Hay in these quarters will keep far better than in a barn, as it is quite away from the breath of cattle or other stock. By exercising care in hauling, the centre or drive-way should be filled with the dryest hay; then at the sides may be placed that which is not so well cured, as these spaces are comparatively narrow. This barn, or barrack, will hold from fifty to sixty tons of hay, and should be built for $75, not much more than a dollar per ton for the first year, and should pay for itself in the extra quality of the hay.

What an Agricultural Journal Should Contain.

BY THOMAS J. FAIR, FRANKFORD, ONT.

An agricultural journal, considering the very few farmers who have had any educational training to fit them for their occupation, should contain the latest and best information on all subjects relating to both scientific and practical agriculture, such as the care and feeding of stock, the selection and thorough testing and cleaning of seed and the preparation of the soil to receive the same, the best time and ways of harvesting and storing the crops, the best kinds and methods of cultivating fruits and vegetables; placing before the farmers the great importance of thorough and clean cultivation, the benefit to be derived from underdraining, and in some soils from subsoiling, giving prominence to stock raising and dairying, and the raising of soiling and other forage crops, including roots, and scores of other topics which will suggest themselves to publishers or be contributed by others, the articles to be published at least one month before the season for putting them into practice. Then when a farmer receives his journal he will expect some spicy information relating to the work he has planned for the next month or two, and will be benefited by it. For example, the notes on seed grain in the March number were replete with valuable information relating to the choice of seed grain; then a part of the April number might profitably be devoted to the best method of preparing the soil and sowing the same; May, to the putting in and cultivation of roots and other hoed crops, interspersed with other articles of importance, and so on through the whole year. But no communication, no difference by whom written, should be published unless the matter was in accordance with the fundamental principles of scientific and practical agriculture. Many very absurd things are sometimes thoughtlessly published that are misleading, and the editor is held responsible for the same The above is a brief outline of what I think an agricultural paper should contain. I will now mention a few that I feel should not receive much space, one of which is allowing breeders column after column to puff the good qualities and grand performances of their favorites, seeming to think self-praise the best of all, for they can have it at any time, forgetting that one column by editor or some disinterested party would be worth more than a score over his own signature. An old adage reads:—

"The wi-est and the best of men
Enjoy some nonsense now and then."

But I would not publish much in an agricultural paper such as stories, puzzles, etc, for the press of the world is poisoned with too much sensational, frothy and nonsensical literature. How the ADVOCATE accords with the foregoing I leave with your readers to judge. Fellow farmers of this magnificent country, is it not a shame if a paper like the ADVOCATE should go begging support when published solely in the interest of us, who number seven-tenths of the population, when the balance, made up of lawyers, doctors, merchants, grocers, manufacturers, druggists, and many others support a journal published in their respective interests, with this difference, all other trades and professions had special training, while most farmers when commencing their business are almost entirely ignorant of the scientific and practical part of agriculture? As for myself, though having a fair education, I knew very little about farming, and though still ignorant enough, I have my eyes open and can see the knowledge we are in need of. I would suggest that every reader of the ADVOCATE induce one or more of his neighbors to subscribe. In nearly every county in Ontario are farmers of first-class scholastic attainments, many of them graduates of universities, some of them specialists, who could contribute first-class articles on the science and practice of farming. If the man who makes two blades of grass grow where only one grew before deserves well of mankind, what doth the man merit who teaches the thousands of toiling farmers in his country to do the same?

The Laying of Stable Floors.

BY J. D. THOMPSON.

One of the first things to consider before making a floor is the durability of it; this is too often lost sight of. The saving effected by a waterproof floor would in a few years pay for it. A mixture of Portland cement and fine, clean gravel makes one that will last a lifetime, and let nothing run to waste. On preparing to lay such a one be sure to have the ground well drained around your stable, make a good level bottom with a slant of two inches from manger to drop. Lay a course of cobble stones as near a size as possible, pour over them a mortar of common lime and coarse sand thin enough to run into and fill all holes. Work this in with a coarse broom, leaving the top rough; let this dry, then mix and put on a finishing coat, Portland cement, one part; and fine, clean gravel, five parts; mix first while dry, then add water and work until thoroughly wet, then spread over the stones to a depth of about two inches. An iron snow shovel will give the quickest and nicest possible finish. To make the drop, lay the cement against a bevelled scantling; this is better and much cheaper and easier than putting in curb stones. The gutter or trench should be not less than six inches deep and two feet wide, behind this lay cedar blocks, in sand, cut four inches long. These should be laid nearly as high as the main floor slanting the trench up to them; this is more convenient and easier to clean out than a square one. In using this for a horse stable we would make it stronger; four parts of gravel to one of cement, when hardened, would withstand the sharpest calks. Cement floors should be made in summer or early fall, as a frost prevents them from hardening; sprinkling with water quickens the process. The cost of such a floor is little more than plank, and there's no home for vermin under them. We have used such a one as this for three years, and it has given perfect satisfaction.