

crossing was done. The improvement was so rapid that it is difficult to see how it could have achieved otherwise. Already in 1760 he was renting rams of his improved breed to his neighbors. A few shillings for the season was all he got at first. As time went on his terms became higher and he charged twenty-five guineas, \$130, for a season's use of one of his rams. In the end one of his famous rams, "Two pounder" brought his owner twelve hundred guineas in one season. The object Mr. Bakewell placed before himself was in both sheep, and cattle to have the "meat laid on in the roasting parts not on the boiling parts." So far as his sheep were concerned he seems not to have troubled himself so much about wool which is easily accounted for. In Great Britain there was no shortage of wool. We always had enough and to spare and there still remains on our statute book laws to enforce the use of woolen goods of English manufacture on occasions which need not be specified.

Perhaps the reason he made a secret of his processes in breeding his Leicester sheep was because a little mystery always adds interest. He was unmarried unlike his contemporary, John Ellman, which perhaps accounts for his secrets being kept. The fact of his being a bachelor may explain something else. He was successful in all his undertakings and yet he made no money. After twenty-one years work he was bankrupt. Hard lines it was for a clever man to work with head and hands all these years and to find himself bankrupt at 51. Well he set to again and we hope he succeeded in getting all he required and spent his later years in comfortable financial circumstances. In that beautiful English landscape amid the scenes in which his life had been spent he would not need to be very rich to be quite happy for "Nature never did deceive the heart that loved her." Mr. Bakewell's fame had spread abroad and he had numerous friends and admirers who brought their friends to see the scene of the Dishley Grange experiments and others, neither friends nor admirers, came too. All were hospitably entertained. This must in itself have been a drain on his resources. At all events he was never a millionaire, never to the end a man who would be considered rich even by the graziers among whom his lot was cast. It is many years since the Scottish farmer recognized in the Leicester sheep a useful ally. These rams are largely used in

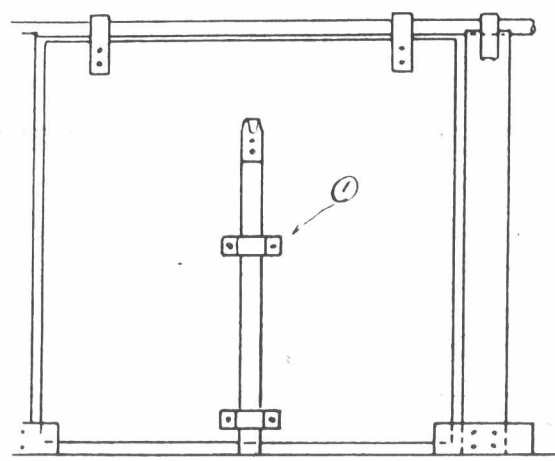


Fig. 1—Front view of the door.

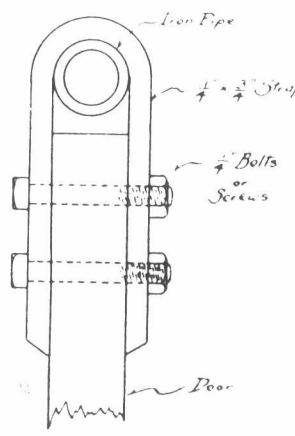


Fig. 2—End view door showing attachment to iron pipe.

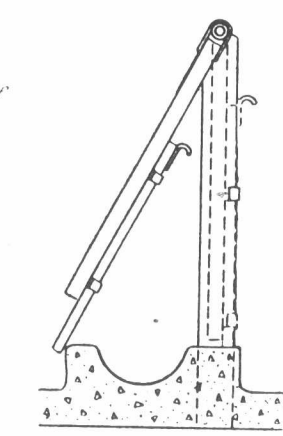


Fig. 3—End view showing door pushed back ready for feeding.

crossing the mountain ewes whose period of usefulness on the hills has ceased. In certain seasons it must take a high order of intelligence and a very considerable amount of pedestrian exercise to obtain sufficient grass and herbs to keep alive on some mountain pastures we have known. The ewes therefore, after having had three or four lambs are retired to better quarters and at least have not to work as hard for their living as in former years. It is under these circumstances that they become acquainted with their south country kindred the Leicesters among others. Robert Bakewell was a pioneer in one other respect. He insisted on absolute cleanliness, so much so that it was said that he "kept his sheep as clean as race horses." He insisted also that kindness should be the rule and if any roughness or cruelty was used towards his stock by any of his servants that person was at once dismissed.

Middlesex County, Ont.

MARGARET RAIN.

Swing Door Over Feed Trough.

On some farms the hogs are fed over a high partition for lack of a proper swing door over the trough. Lifting the heavy pails of feed over a four-foot partition is hard work, and more or less of the feed is slopped on the attendant as well as on the hogs. It is difficult to keep the hogs from upsetting the pail. The accompanying illustrations, submitted by S. G. Collier, of the O. A. C., Guelph, indicates one method of hanging a swing door. Figure 1 shows a side view of the door swung back so that the pigs cannot interfere with the feeding. Figure 2 shows the doors swung into position. It will be noticed that this door is hung to an iron pipe by means of a couple of two-inch iron bands. This swings quite easily and it is not difficult to install the swing fronts to each pen in the piggery. Figure 3 shows the method of bolting the iron strap to the door. This method is more satisfactory than using hinges. The bar which holds the door open or closed, as desired, slides up and down in an iron guide which any blacksmith can readily make.

Suggestions for the Improvement of Canada's Live Stock.

CANADA now has the opportunity to get into long trousers as a live-stock producing and exporting country. The decreases in Europe amount to ten times Canada's total live-stock population. Denmark, which, prior to the war, dominated the British market with her bacon and to some extent with dairy produce and eggs, finds herself with only 500,000 hogs, whereas before the war she had over two and a half millions. More than that, the Central Powers forced Denmark to divert her product into the hands of Britain's enemies and Germany may now hold out the Mark in place of the mailed fist to the industrious and systematic Dane. Ireland formerly sent Britain the product of 15,000 hogs weekly; this has been reduced to almost one-quarter of the original amount. Russia has defaulted and Canada is left with one of the greatest opportunities we ever had to expand and establish ourselves as caterers to the British Isle. Europe is short of beef, dairy produce and eggs. The market is there for the one who will bid highest in quality, volume and service. Surely Canada will not sit idly by and see this business captured by other peoples more remote from the English consumer, both in terms of distance and blood relationship, than we of this Dominion. The obstacle which must be faced and overcome is the inferior quality of our cattle stocks as compared with those of prospective competitors. We are below the standard, so we may as well admit it and in a energetic, business-like way set about to remedy the situation. This article is being written with the hope that it may throw a ray of light across the pathway of those upon whom the great responsibility rests and help to guide their faltering footsteps out into the clearing.

While the Federal Government may pat themselves on the back and say that everything possible has been done, the fact remains that since the signing of the Armistice a period of about five months has elapsed and nothing has been announced to inspire the producer of live stock, or show him what the future demands. If the Department of Agriculture is in earnest about this thing someone with the Government imprimatur upon him should carry the heavy cross up and down the side roads and concessions of every province of this Dominion, exhorting producers to enlarge and improve their live-stock holdings. If the Department is not in earnest then it would be better for all concerned if we knew it. The return of the Live Stock Commissioner from Europe should be the prelude to a clear and comprehensive statement concerning the future of our prospects and what is required of us. This should be followed by a conference with representatives of live stock men from all the provinces. The Department of Agriculture must feel competent to place before the people a definite and binding plan of action. However, the live stock men of the country can find no reason for suggesting that the Eastern and Western Canada Live Stock Unions be called together for a consultation. With that body should be associated other representatives, even and the heads of the individual landranch departments of all our agricultural colleges. The provinces should be

adequately represented. When the Department's message is heard and their plans endorsed then every province should be stirred and made to appreciate their duties in regard to the great live-stock expansion movement. This is only a beginning and we shall proceed to enumerate a few suggestions for the improvement of our live stock.

The First Step.

Undoubtedly the first item on this expansion program should be a heart-to-heart talk between Government and producers. The curtain should be drawn so the people can get a clear view of the situation and they should be told if it be true that our best Christmas beef is not as good as the general run of Argentine beef exported to Britain. We ought to know what the bacon trade demands and what will be required of the producers in numbers and quality of cattle, sheep and swine. It must be impressed on farmers generally what the whole thing means, why this expansion movement, and all should be rehearsed in their parts so the play can begin.

Quality is the big factor, but what is the standard? What class, weight or grade of bullock will kill out a good export carcass? The proper type of steer should be exhibited at all exhibitions and fairs in Canada. We have long had classes for export steers where the best ones get the red ribbon, but that only signifies that they are the best there—not that they are the ideal type and what the market really demands. We repeat: Steers of the type and finish suitable to meet export requirements should be exhibited, under the auspices of the Live Stock Branch, at all fairs and exhibitions.

Export requirements can be met only through proper breeding and good feeding. The next step is to demonstrate the character of a herd needed to produce steers of suitable quality. On every experimental and branch farm there should be a grade herd made up of breeding females qualified, when mated to the right kind of bull, to produce the kind of steer we need. The herd need not exceed half a dozen cows and they should not be the best that can be found, but representative of what the average farmer can and should have. The bull with which they are mated ought not to be a high-priced sire but just good enough for the job. There are plenty of so-called plainly bred bulls in all the best breeds that are fairly good individuals and capable of siring good steers. The farmer should be shown, not the ideal but what he can and ought to maintain in the way of a herd. We have idealized too long. It is time to come down out of the air, meet the farmer on his own financial level and work along together toward the common goal. This "farmer's herd" should be an addition to the live-stock activities conducted on the Experimental Farm, and should not replace the pure-bred stock.

The steers of the parentage just suggested should be reared in a manner consistent with good husbandry

and when properly fitted for the block (not the show-ring) they could be used for demonstration purposes as outlined heretofore.

The country would then be interested in how the "farmer's herd" was handled, how the steers were fed, the cost of production and in full information concerning the beef-raising operations as conducted by the Experimental Farms. Reports on this work would be exceedingly valuable and would not have to be translated before the average live-stock man could assimilate them and apply the teachings.

The herds themselves could be exhibited at provincial exhibitions, and, combined with the steer exhibits would be one of the most instructive features of the live-stock department of the show. Good breeding condition, rather than show fit, should be the aim so the progressive breeder could get the proper conception of what constituted the kind of herd he could profitably maintain and the quality required to meet trade demands. The provinces can co-operate in this work but their duties will be discussed later under the heading of Provincial Activities.

Government Pure-bred Herds.

Just as it is important that the producer be shown what constitutes a reasonably good breeding herd for the average farm, so should the Government pure-bred herds be examples and sources of breeding stock to the constructive breeders of this country. The herds should be made up of AI females of the breed they represent and they should be topped with the best bulls obtainable on this or the other side of the water. Argentine willingly pays from \$15,000 to \$20,000 for good bulls, while we pay from \$1,500 to \$2,000. So long as we are penny wise and pound foolish in this matter our chance of gaining recognition in the world markets are comparable to those of the proverbial snowball. We would not recommend that extremely high-priced bulls be put at the head of indifferent herds; that would not give us the desired results. At the Ontario Agriculture College is maintained a good herd of Shorthorn females, largely of Augusta breeding, and with them could profitably be mated one of the best bulls Scotland can produce. If the banner live-stock province of this Dominion cannot afford it, what can we expect of the other provinces? The head of the Animal Husbandry Department would, no doubt, gladly endorse this suggestion; the Minister of Agriculture for Ontario would probably be willing to accept the proposal if the Cabinet, of which he is a part, would sanction such an expenditure; the Ontario Government as a unit would, perhaps, make the appropriation in a minute if they felt sure the people would ratify the move, and there we are. We in Canada, people and Government alike, are thinking in terms of cents so far as agriculture is concerned, while other countries are thinking in terms of dollars.

Our Experimental Farms' herds, and those maintained at the agricultural colleges, should be of the very best and then nothing ought to prevent heading them with the best bulls in Canada, United States, or Great Britain. However, we do not consider the Govern-

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