

done nothing effective can be accomplished, for the whole interest of the farmer is to conceal the existence of the disease. Principal McCall does not urge that all tuberculous meat should be destroyed; he would strongly prohibit its indiscriminate sale, but he argues that were carcasses carefully inspected by qualified veterinarians, many which now are ruthlessly destroyed might be saved and cooked under strict sanitary conditions, so that they could be utilized to the great benefit of the community. Speaking as the veterinary adviser of the Board of Health of Glasgow, the opinion of the Principal will carry great weight, and he may yet live to see his ideal realized.

Another cattle question about which there is great searching of heart is the importation of foreign store cattle. The vast majority of farmers and breeders are well-pleased with the results of the policy of the Board of Agriculture in stamping out and preventing further outbreaks of pleuropneumonia, but many breeders, especially in England, are anxious to go further and absolutely prohibit the importation of foreign stores. The Minister of Agriculture, while firm in adherence to the policy hitherto pursued, has put down his foot and refuses for one moment to accede to this idea. He will not import disease, but he will steadfastly refuse to prohibit the importation of live cattle when this cannot be done without risk of disease. There can be no possible doubt that Canadian stores have done well in this country, and many regret that any necessity should be thought to exist for refusing their free entry.

During the week now ended a good sale of Ayrshires and a fine show of cattle and horses have taken place at Castle-Douglas, and recently we have had quite a number of Hackney sales, as well as the Marquis of Londonderry's annual draft sale of Clydesdales on Thursday. A valuable shipment of choice Ayrshire cattle has been made to Mr. J. P. Dawes, Montreal. They were purchased by Mr. A. B. Stalker from Mr. John Craig, Nethercraig, Kilmaurs, and are alike well-bred and able to give good records at the pail.

At the Marquis of Londonderry's sale six yearling fillies made an average of £20 3s. 0d. a piece; four two-year-old fillies, £14 12s. 6d.; three three-year-old fillies, £20 14s. 6d.; six brood mares, £32 11s. 9d.; five stallions, £133 15s. 4d.; and six yearling colts, £31 14s. 2d. The best sale of Hackneys was held at Mr. Andrew Hunter's place near Glasgow, when the fourteen Hackneys drew an average of £103 16s. 0d. a piece, the phenomenal driving mare, Lady Lofty, realizing the equally phenomenal price of £598 10s.; another mare, Coquette, drew £173 5s., and a gelding, The Masher, £108. SCOTLAND YET.

#### Chatty Stock Letter from the States.

FROM OUR CHICAGO CORRESPONDENT.

Top cattle \$1.90, against \$1.75 a fortnight ago, and \$6 a year ago; hogs \$5.40, against \$5.10 a fortnight ago, and \$7.35 a year ago; sheep \$1.75, against \$5.25 and \$6.15. Live stock prices were higher a year ago, but the trade was not so healthy. The cattle market shows a remarkable degree of vitality. Receipts have lately been liberal and larger than a year ago, but the demand has improved to such an extent that a reduction in supplies for any length of time forces buyers to bid up sharply. On a recent Monday there were only 13,000 cattle, as against 17,000 expected. The lightness of hog supplies would justify a much higher range of prices in ordinary years. April hog receipts 158,000 ahead of last year, while receipts for the year to date show 728,000 larger than the meagre runs the corresponding time last year. The effort of farmers to save pigs is very marked. They are paying a decided premium on pregnant sows to keep at home. That is better than putting such stock on the market. There are points in Iowa where cattle feeders are compelled to market their cattle, as they are out of corn and farmers are too busy and independent to stop and haul it. The writer knows a feeder who had to send his cattle to market a month earlier than he thought best, simply on this account. There was plenty of corn, but farmers did not want to stop spring work. That fact certainly shows an encouraging state of business.

Sheep prices advanced to such a high point that exporters were temporarily shut out. Lately a decided reaction has set in, and exporters have gone to work again. Joseph Gould bought 7,500 sheep from one man to be delivered at Chicago at \$1.75 per 100 lbs. They average about 160 lbs. shorn, and go to Liverpool. They were bought before the recent break. The sheep exporters have made plenty of money. Prospects are that supplies of inferior grass sheep will be excessive.

After about the tenth of May, when grass comes and farmers can scatter their stock and hold and feed at less expense than now, there will be a betterment in the cattle market that will astonish the natives, and it will last at least till the end of August. This was the opinion of a well-posted cattle man. The severe drought in Texas makes it certain that there will be no grass Texas cattle marketed to any extent before July 1st, or at least six weeks later than usual.

The people in an Illinois town recently joined in a "roast pig" social at one of the prominent churches. They had pig in every conceivable style, and with a reading of Chas. Lamb's essay, and an original dissertation on pig, a good time was spent. A well-known Chicago packer, asked what he did with all the meat he handled, said: "We eat what we can, and can what we can't."

#### The Cow for Canadian Dairymen.

PAPER READ BY GEORGE RICE, BEFORE THE CANADIAN HOLSTEIN-FRIESIAN ASSOCIATION.

The majority of Canadians have an inherent love for large cattle. It is not altogether a matter of sentiment, either, as experience led us to believe that large cattle suit our conditions better. It is now becoming an exploded idea that has been advanced by some, that the larger the animal the greater amount of food is required for maintenance per 100 lbs. live weight.

An elaborate test to determine this question has recently been undertaken by Cornell University, and the figures show that economy of production is not attained by the smallest cows. The smallest cow, weighing 815 lbs., consumed the most dry matter (249 lbs.) for each 100 lbs. of milk; whilst the largest cow, weighing 1,520 lbs., consumed the least dry matter (74 lbs.) per 100 lbs. of milk.

A similar difference was noticeable in regard to the production of butterfat, and ten cows, weighing less than 1,000 lbs., consumed 264 lbs. dry matter per 1,000 lbs. live weight; and ten cows, weighing 1,100 lbs., consumed only 23 lbs. of dry matter per 1,000 lbs. of live weight. These facts are all in favor of the large animals. Undoubtedly the larger cows possessed better and stronger powers of digestion, and here is where the grand feature of a true dairy cow comes in, and more depends upon the powers of assimilation than upon mere size, and we want cows whose conformation and temperament give them superior powers of digestion.

The question as to economy of production between the breeds has not been settled, and never will be, because as has been well said, there is more difference between individuals of one breed than there is ever between the different breeds. The largest producers are invariably the most profitable.

Canadian dairymen want cows whose characteristics come nearest in filling their want. We require a cow for cheese first and butter second, because our export of cheese is many times that of butter. Undoubtedly our production of butter will greatly increase, but owing to our position we can only aim to expand our butter making by producing it during the winter months, as our home markets are comparatively small, and if we have to look to foreign markets we can only place our butter in first-class shape in the winter months.

If there is anything that will wake dairymen up to a desire for first-class cows it is winter butter-making. The feed being then more expensive than in summer the profit is small, and three years' experience in winter buttermaking at our factory has brought me to the conclusion that our progress in winter buttermaking is to be slow, but I still believe it is to the best interest of dairymen to expand this trade; reduce cost of production by keeping good cows and feeding most suitable feed. We will then have a safety valve to let off steam if we should get up too much in cheesemaking, and flood the market by overproduction—a danger not yet apparent, however.

In order to get good butter cows, we may have cows that give a medium quantity of milk rich in butterfat, or cows giving a larger quantity of medium rich milk; but if you want great butter cows, then you want cows that give a large quantity of rich milk—that is where the great ones are to be found.

Now, as regard milk for making cheese, what do we require? Some say "butterfat," but then they make cheese out of skim milk, in which there is only a trace of fat, so this must be taken with a qualification. True, in the Columbian test the best butter cows were best cheese cows also; but, then, they were also the largest milkers in that test, and a 2.10 horse is fast until it meets a 2.10. What is, then, the relation of butterfat to cheese?

From a great many reports of milk containing different percentages of butterfat Prof. Babcock, of Wisconsin University, found:—

Milk averaging 3.16 per cent. fat made 2.86 lbs. cheese per lb. fat.	
" " " 3.20 " " " 2.60 " "	
" " " 4.53 " " " 2.39 " "	

I might give similar evidence, but space forbids. This shows that a pound of butterfat in the richer milk made less cheese than in the poorer milk; but, on the other hand, milk containing more butterfat up to certain limits improves the quality of cheese, but there is nothing gained by going beyond the amount of butterfat required in the milk to make first-class cheese. The limit in this regard has not been determined, but is under 4 per cent. Evidence on this point might be taken from the fact that we have a first-class reputation for our cheese. From several reports of factories we find that milk has tested from 3.3 per cent. at one season of the year to 3.8 per cent. at another. One factory has given as their average 3.5, and from such milk first-class cheese is being made. More evidence is, Canada beat the world at the World's Fair, and the percentage of fat in the milk in the months these show cheeses were made would be about 3.7, certainly under 3.8. So that it will be seen that not very high per cent. of fat is required for the first-class article; but, under our conditions, the "relative value plan," according to per cent. of butterfat in milk, is a fairly accurate method of determining the value. It is at least nearer than the old way to being fair, and leaves no inducement for tampering with milk. Our milk on the whole is good; it will be improved in the natural course of events by having cows calve in the fall for winter buttermaking, therefore richer in summer from being longer in milk, more intelligent feeding and selection.

The consumers', dealers' and makers' end of the business is all right; but how about the producer? That is for us to consider. 'Tis said that the average cow produces only 3,000 lbs. of milk per year—that is bad for the producer; it is not, then, the quality of the milk we so much need to improve as the quantity. Our cows should give us 5,000 to 6,000 lbs. at least, and thus double our income.

The cow that Canadian dairymen want is, the cow that gives the largest amount of milk sufficiently rich to make first-class cheese.

How to get her. Some I know that are good judges of dairy qualities buy first-class cows; but this, though good for them, does not add to our country's number of good cows, but leaves the more poor ones for others. The only way to increase the number in the country is to breed them, and this must be from pure-bred stock that possesses the required characteristics, which is to give the largest possible quantity of milk, butterfat and other solids. And what about the breed that we are here to represent to-day? Do they possess these characteristics? If so, we are building upon a rock—the rock of demand.

Those entered in the Columbian test came so far behind their private test that we find to-day private tests are at a discount. So be it. The great but not only Association has flunked, but private parties have not been idle.

In the public test conducted by the Ohio State Fair and University, we find last year four entered from one herd with this result:—

Eunice Clay, 8 years old, produced 84.62 lbs. milk in 24 hours.	
Iolena, 4 " " " 70.10 " "	
Hilton Maid, 9 " " " 67.12 " "	
Vassaline, 4 " " " 67.06 " "	

These are all Holsteins, and won all the prizes for total butterfat, total solids, as well as milk. Taking the cow Iolena, that gave 70 lbs. milk, testing 3.48 butterfat, or making nearly 3 lbs. of butter per day, at a profit over feed consumed of fifty-three cents for the day, figured by Columbian test rules, this is the best dairy work of the year in any public test. In this same test the best cow of any other breed gave 48.17 lbs. milk, testing 3.75 per cent. butterfat—creditable by itself, small in comparison.

Lest the hyper-critical may say, "What have these high-testing Holsteins to do with Canada?" I will just say that the blood of almost all the highest testing Holsteins is in Canada, and if breeders and dairymen in general take advantage of these superior cattle, we shall make rapid strides, and the 3,000-lb. cow shall become a rarity instead of the rule.

#### Southdowns.

(Continued from Page 159.)

Why I advocate the system of tattooing is that I have found it is as certain as any other mark, and because it has one great advantage in that it cannot be removed, and once there it remains; as many of the Southdowns now here have these marks, as well as the registered trade mark of the Southdown Sheep Breeders' Association, therefore any one can see it for himself and he will at once appreciate its value.

For the information of those that may not be aware of the fact, I may inform them that no registered Southdown sheep leaves England without being first trade marked, and warn intending purchasers that if they are buying imported Southdowns they ought to make sure they are getting what they desire, to insist upon seeing the registered certificate of every individual sheep, which is granted to it, and to it alone, on leaving England. This certificate is duly signed by myself and stamped with the common seal of the Society. The purchaser will find written thereon, in addition to the pedigree, the copy of the registered trade mark, with owner's flock number in left ear and owner's private number in right ear.

Remember that all sheep imported that have neither the registered trade mark nor foreign certificate are unregistered and unrecorded; whilst every sheep whose registered trade mark and flock number correspond with the certificate produced is guaranteed pure by the English Southdown Sheep Breeders' Association.

As to the management of flock in reference to feeding, it is certainly necessary never to let the lamb lose his lamb-flesh, but to keep him going on from the first by gently but surely pushing him until ready for the market. Give every change of food possible, give as great variety as possible, and the better will be the result.

Another point in management, and upon which a great deal depends as to profit and loss, is the care and attention that is paid to keeping the sheep healthy and clean. They should all be dipped at least once a year, twice if possible, and all lambs should without fail be dipped as soon as ewes are shorn, and once again in September. These, what some call unnecessary expenses will be more than repaid by the increase in wool and general health and freedom from losses. Again, all sheep should, in places where the ground they feed on is free from stones, or where they are constantly on grass, have their feet pared at least twice a year; and if lameness ever breaks out, at once pare every foot, and then turn them into a pen with one half-inch of unslacked lime in on the bottom. By these means, I am sure that lameness will pretty soon be cured and healthy feet secured again. It is chiefly owing to the neglect of seeing that the feet are properly pared, that causes the very great amount of lameness amongst sheep. I have myself