

EDITORIAL.

A Group of Brown Swiss Females.

The place of honor in this issue is assigned to a group of Brown Swiss heifers, the property of Walter Fish, Mystic, Conn., U. S. A. The heifer in the lower left-hand corner represents Prize 1043; she was calved June 18th, 1894. The next beyond her is Muotta IV. 1033; calved Jan. 7th, 1894. Just beyond her portrays Nelly 3rd 1137; calved Oct. 9th, 1892. Just before her is Ophelia 1138; calved September 23th, 1892. In the lower right-hand corner is represented Clothilda 1042; calved May 15th, 1894. These animals were all bred by their present owner, and are from prize-winning stock. The heaviest of them weighed, at the time the photo was taken, about 1,000 pounds, with not more than ordinary farm treatment. Further information regarding the Brown Swiss breed of cattle is contained in the FARMER'S ADVOCATE of June 15th, 1894.

Result of the Trial Shipment of Canadian Apples to Australia—Somewhat "Fruitless."

We announced some issues ago that a trial shipment of Canadian apples had been made to Australia, by Mr. L. Woolverton, Secretary of the Ontario Fruit Growers' Association, and Mr. G. W. Cline, Winona, Ont., whose names are a guarantee that the lot sent were high-class. In Australia they were looked after specially by Mr. J. S. Larke, the energetic Commercial Agent of the Canadian Government there. In order to secure the fullest information and the best monetary returns, he placed them on arrival in charge of Mr. F. A. Winter, a Canadian, from Preston, Ont., who has been in Australia for some years, and is devoting himself to handling Canadian goods. Under the date of Dec. 20, 1895, Mr. Larke writes the ADVOCATE from Sydney, N.S.W., enclosing a copy of his report to the consignors, and also of F. A. Winter & Co. to himself. "I may add," Mr. Larke writes us, "that the 15s. per case (bushel) that were received for three cases of good Cranberry Pippins was 5s. a case higher than any other fruit, so far as I can learn, brought in the market at that time. The experiment to be made on shipments of Tasmanian apples will be made during the coming autumn (March next). I have no doubt whatever, that apples can be safely brought across the Pacific, and the number I have indicated can be sold at a large price. When you remember that these apples will have to be sold retail at from 4c. to 8c. each, it makes them a luxury that brings them within the reach of but a small portion of the population. I hope that the loss entailed by Messrs. Woolverton and Cline through this shipment will be made up to them, as the experiment is worth something to the country.—J. S. LARKE."

We select a few points from Mr. Larke's detailed report:—*Cooling Mth.*—One or two found; should be carefully guarded against in future shipments. *Size.*—Shipment should be one portion of medium size, another of the largest, two cases of the former to one of the latter. *Color.*—Should be bright red. Cranberry Pippin was most suitable for that market. Greenings were mistaken for local cooking apples, though they had retained their flavor better than others. *Wrapping.*—Apples should be wrapped to prevent skin abrasion. Manilla is better than tissue paper. Best shippers there wrap the ends of the paper about the stems, thus preventing bruising. *Cases.*—Should be ventilated, either with bored holes or spaces between pieces joining top and bottom. Cleats nailed on top and bottom sides, to prevent too close packing, also advised. *Shipment.*—Fruit was carefully handled by C. P. R. and was also put in insulated chamber by the steamship people and electric fan used; but the hot air of the tropics steamed the apples for two weeks, till the odor and flavor of the boxes permeated the fruit. This disappeared on exposure, but left the fruit insipid. The temperature of the insulated chambers should be kept at a little above freezing. Shipments of apples are to be made shortly from Tasmania to Vancouver, B. C., and Mr. Larke proposes to have the steamships test different methods of carrying fruit. *Prospects.*—Mr. Larke thinks that about 8,000 cases of apples like the Cranberry Pippins could be sold there at ten to fifteen shillings per case. Should be landed by steamer reaching there in November, when market is barest of fruit and weather cooler. Whether this will pay depends on price in Canada and freight rates. Mr. Larke regrets that the result was not more satisfactory, but says it was not for lack of attention at that end. Mr. Winter's commission of 6d. per case was about one-half the regular commission, which is 7½ per cent.

Additional facts are brought out in Mr. Winter's detailed report. The duty of 1s. per bushel will not occur in future shipments, being removed on Jan. 1st. There is a strong prejudice against American apples, which are so often rotten at the core and tasteless. Stacks of them have been sold on the wharfs at from 6d. to 2s. per case (bushel). For some years there has been about three monthly shipments every year from San Francisco, but the quantity has been falling off of late years, local apples being kept longer and brought in earlier than formerly. This season about 6,000 cases arrived: 1,600 in October, 2,995 in November, and 1,000 in December. The freight from San Francisco is about 3s. 6d. per case, or nearly as much as from Grimsby, Ont., to Sydney. The long rail shipment

did not appear to affect carefully packed apples in the least. The Canadian trial shipment on arrival was found very much heated, some presenting a parboiled appearance, and many of them completely decayed. The Kings were in very bad condition. Mr. Woolverton's Baldwins are spoken of favorably, but there is a prejudice against them having a tendency, as they say there, "to go sleepy." Mr. Cline's Spys were badly spotted, and colored tissue paper had stuck to the Baldwins. The Greenings did not suit the market, as above stated. Mr. Winter appears to think that a limited number of Canadian apples, well colored, and of second size grade, like some of the Cranberry Pippins sent, would meet with ready sale. Detailed account of sales shows that in the Woolverton lot of 35 cases Baldwins, only 11½ were marketable; of 27 cases Cranberry Pippins, 15; 1 case Kings, 1; or of 63 cases in all, 26½ were marketable. Of Mr. Cline's 24 cases Baldwins, only 10 were marketable; of 18 cases Greenings, 7 marketable; of 8 cases Northern Spys, 1½; or of 50 in all, 18½ cases marketable. The total amount of cash received for the two shipments (113 cases, of which about 45 were marketable) was £22 7d.; the expenses there (duty, commission, wharfage, cartage, picking, repacking, market dues, and space for repacking) amounted to £10 18s. 5d., leaving net £11 8s. 7d. In addition to the above expenses would be the freight from Grimsby to Australia, and other shipping expenses, besides cases, etc. Mr. Winter, in conclusion, says: "It is to be regretted that the trial shipment has not paid those who were plucky enough to make the venture, and I trust that future shipments may more than compensate for all loss on this. The experience gained may serve to prevent more serious losses in future."

Preventing Tuberculosis.

Principal J. McFadyean, head of the Royal College of Veterinary Surgeons, England, contributes a concise paper on "The Prevention of Tuberculosis in Cattle" to the journal of the Royal Agricultural Society. It is now accepted on all hands, he says, that Koch's bacillus is the cause, and the only cause, of tuberculosis, and an animal will never become tuberculous unless the specific bacilli somehow gain access to its body. In other words, tuberculosis is not, to use popular terms in a loose way, a hereditary, but a contagious disease. This particular bacillus can only live in elevated or nearly constant temperature of 90° to 100° Fahr. This is equivalent to saying that an animal cannot contract tuberculosis except by receiving the bacilli into its body, and these bacilli must come directly or indirectly from the body of a man or animal previously attacked. These bacilli are usually thrown out from the lungs, or may come from the bowels if the disease is located there, and are spread in the milk when the udder is diseased.

It used to be supposed that conceptional infection from a tuberculous sire, or intra-uterine (within the womb) infection from a tuberculous dam, was a common occurrence, but Principal McFadyean pointedly affirms that in spite of the diligent search that has been kept up, cases of congenital tuberculosis are still among the rarest of pathological curiosities. (Hence, we might observe, what was once regarded as orthodox veterinary gospel is not so regarded to-day.) It is by no means disproved, he asserts, that constitutional predisposition does play a part in determining what individuals shall be the victims of tuberculosis. In fact, the tissues of some afford an unusually congenial soil for the propagation of the parasite, and these he locates among the most highly domesticated breeds. This idea is confirmed by experience, because it has been found that when kept under cover like dairy cattle, the West Highlanders even have become subject to the disease.

When a given herd is largely tuberculous, it will generally be found, he says, that the cause lies not so much in a special predisposition to the disease as in special circumstances favoring infection, such as close housing, bad ventilation, keeping animals in the stock long after symptoms of the disease have become unmistakably apparent, and in the absolute neglect of every precaution ordinarily put in force against infectious disease. There is no greater enemy to the tubercle bacillus than sunlight, and given plenty of that its multiplication can be kept within very narrow limits. The darker the stable the more favorable it is to the spread of tuberculosis. Brief contact, even in the same house, brings very little danger, and when the contact is out of doors there is little or no risk of the disease being contracted by inhaling bacilli. Tuberculosis is rare among animals kept all their lives out of doors. These considerations but emphasize the need of attention to fresh air, light, and, in general, a rational treatment of cattle (dairy cows not excepted), so often urged in these columns.

As regards its effect upon the animal, he says tuberculosis is by no means so serious a disease as it was once thought to be. Of the tuberculous animals alive at the present moment, the great majority present all the symptoms of good health. Probably only a small proportion will ever present any symptoms attributable to the disease; in other words, tuberculosis of cattle is ordinarily a slow disease, and when the subject is well cared for may live for years without exciting suspicion as to its real condition. A tuberculous cow may breed for years and be made prime fat in the end, and in the same way a tuberculous bull may be used for years for stock purposes.

Principal McFadyean concedes the usefulness of tuberculin as an aid in distinguishing tuberculous animals from those free from the disease, but says, unfortunately for that plan, it involves a great sacrifice when a large proportion of animals, whose main value is for breeding purposes, happen to be affected. The drastic slaughtering campaign inaugurated, for example, in the State of Massachusetts, would be out of the question for England, he says, owing to the enormous expenditure it would involve. Even the less drastic plan proposed in France, assuming one per cent. of French cattle to be tuberculous, would require, if executed in Great Britain and Ireland, the expenditure of about \$1,000,000 the first year. He alludes to the encouraging results attained by Prof. Bang, Veterinary Adviser of the Danish Government, in weeding out tuberculosis from an experimental herd. In that country, when the owner of a herd undertakes to make a serious endeavor to eradicate disease, in the event of his stock being affected, the Government supplies tuberculin gratuitously, and pays a V. S. to carry out the test and keep a record of the results. The owner undertakes: 1. Dividing healthy from unhealthy stock by using separate stables or by a close partition; disinfection; separate attendants, or if that be not practicable, change of boots and clothes when going from one lot to feed and clean the other. 2. Calves are fed milk only from cows that have not reacted, or milk boiled or heated to 85° C. 3. Not to rear calves from cows in an advanced stage of the disease, or, at least, not to rear such calves unless they have, by the tuberculin test, been ascertained to be free from the disease.

What Principal McFadyean has written suggests preventive measures and weeding out obviously diseased cases rather than encouraging tuberculin enthusiasts who would inaugurate a promiscuous slaughtering crusade.

Dehorning—The Book on Silage.

The practice of dehorning cattle is steadily growing in favor and becoming more general. In many of the older dairy sections we have noticed herd after herd minus their horns, the owners expressing themselves well satisfied with the results, with rare exceptions. Nearly every day, in their correspondence with us, some of our readers refer to dehorning. Where steers are yarded or fed in sheds it is deemed imperative. Both clippers and fine-tooth saws are in use, the former being the more rapid process and in vogue where large numbers are to be dealt with. Many persons make a regular business of dehorning, visiting farm after farm. Another phase of the subject is dealt with in this issue by Mr. Thos. Baty, whose experience in dehorning calves (a practice which thus far has received comparatively little attention) is valuable. After a fair trial, he has discarded as unsatisfactory the caustic method, and now uses a set of what are called the Haaff tools for dehorning calves from six weeks to six months old. Two years' trial has fully satisfied him as to their advantages. We might add that we have visited his herd, and can fully bear out what he has stated. The two-year-olds, whose horns were removed with these tools when calves, present a fine appearance, and were extremely docile. On some animals, where the caustic potash was used two or three times, "scurs" had grown out several inches long. In fact, we were so well satisfied with his plan that we have arranged for a supply of these tools, which sell at \$1.50 per set, and offer them elsewhere to any ADVOCATE subscriber sending us the names of four new paid-up subscribers at \$1.00 each, postage or express prepaid by us. A group of neighbors securing one of these sets can use them for dehorning the calves on the several farms. They are not serviceable for mature animals. An illustration and further particulars regarding this offer appear on our Premium page.

THE "BOOK ON SILAGE," which we are offering as a premium for obtaining new subscribers, has taken remarkably well, as we anticipated it would, owing to the keen interest manifested everywhere on this subject. We have already sent out large numbers as premiums. Mr. John McMillan, of Shakespeare, writes:—"Prof. Woll's Book on Silage received, for which accept my cordial thanks. This valuable work should be in every farmer's hands." A copy, bound in paper, is given any present subscriber sending in one new subscription, or a volume, handsomely bound in cloth, for two new subscriptions.

THE COLLIES.—As stated in a previous issue, the young Collie dogs bred by Mr. McEwen, of Byron, have been popular as premiums, and have gone to various Provinces. Mr. D. D. McGibbon, of Quebec, writes:—"The Collie pup arrived all right, and I am very much pleased with it. I think it a very fine one, indeed. Many thanks."

John McPherson, Restigouche Co., N. B., writes us, renewing:—"I would not be without your valuable paper for twice the subscription. There are a great many single articles worth twice the subscription price. Wishing you every success in your great work of helping the farming community."

W. H. Crews, Hastings Co., Ont.:—"The ADVOCATE is a paper of great value, and should be in the hands of every farmer in Canada. The article written by James Mills, of the O. A. C., in December 15th issue, was a grand address to the farmers' sons of Canada. It should be widely read."

Another subscriber of nearly thirty years' standing, in renewing, writes congratulating us on the improvement in the ADVOCATE, and wishing us continued success.