of excellent quality—and they certainly were ripe—were offered for sale here. They brought $5.15 a hundred, and weighed 900 pounds, or an average of $46.35 a head. These were high-bred grades. The tendency here in the West and out on the ranges has been towards an improvement in the quality of stock, and the result has been an increase in price.

The Lambing Season.

Owners of pure-bred flocks of sheep as a rule mate the ewes with the rams in the fall at a date which will bring the lambs due in March and April. Generally speaking, it is found that in well-fed flocks the early lambs come stronger and go on better than do those coming in the later spring months. This is probably in part due to the amount of exercise the mother gets in the late fall and early winter months, which tends to the healthy development of the fœtus; while the ewes lambing late have been confined to the pen, perhaps necessarily, on account of the land being deeply covered with snow.

If the ewes have not been generously fed through the winter, they should have a little extra feed for the last month before parturition. A few turnips or other roots and a light ration of oats and bran once or twice a day will serve to give them strength and to provide milk for the lambs when they come. To this end, if a record of service has been kept and it is known which ewes are first due to lamb, it is a good plan, where the pen is roomy enough to be divided, to separate them, so that these may be fed more generously than the others. If this is not practicable, then give all a little better keep. It is well to provide a number of low short hurdles with which to make pens for single ewes when they lamb, for a few days, especially in the case of twins or a weak lamb not being able to follow its mother. We do not, however, advise keeping the ewe caged longer than is really necessary for herself and her lamb to become acquainted, which is generally a couple of days. There is always danger of overfeeding a single ewe and causing trouble in her udder, or her lamb getting too much milk for its good. The exercise which both ewe and lamb get in moving around in the flock is conducive to their health and thrift. After a few ewes have lambed, it is desirable to separate them from the flock and feed them liberally with roots and bran and oats, in addition to good clover hay if it is in store. When the lambs are two or three weeks old they will begin to pick a little feed, and to give them the best chance, a space in the pen should be enclosed with hurdles with a "creep" or gate, with spaces through which the lambs can go and the ewes cannot follow. In this a low rack and trough should be provided, in which the lambs may be fed hay, meal and bran, and later sliced roots also. With this provision, they will grow and thrive, and will not draw so heavily upon their dams as if always hungry.

As a preparation for the lambing season it is well to have the ewes trimmed with the shears, their tails being squared and any dirt-locks in the twist cut away, as well as some of the longest locks around the udder and flanks, as lambs are apt to gather wool into their mouths when seeking the teat, which finds its way into the stomach, forming wool balls, which cause indigestion and sometimes death.

Usually when ewes are in good thrifty condition, not too fat nor too poor, there is little difficulty attending the birth of the lambs, and if the presentation is normal there is seldom any need of assistance. A ewe may be uneasy for hours and give the signs of approaching labor, but generally it is best to give her good time, and she will work out her own deliverance. If the delay is abnormal, it is well to make an examination, and if the presentation is not as it should be, the oiled hand should be gently introduced and the fœtus put into proper position, when the ewe may be given a little more time and, if necessary, some assistance in her delivery, but always with gentleness. Many ewes, we fear, are ruined by too much haste on the part of the attendant.

After the birth of the lamb, the ewe should be allowed to lick it dry, and in about half or three-quarters of an hour, if the lamb does not succeed in sucking, it should have assistance in getting its first meal, which had better not be a heavy one. Little and often is nature's plan, and there is no better way for the safety of the youngster. When once a lamb gets dried, and some mother's milk into it, it will stand a good deal of cold without suffering. In cases of false presentation and very severe labor, it is well after the birth of the lamb to pour a weak solution of carbolic acid into the vagina from a bottle, say one part of carbolic acid to fifty or sixty of warm water, and in the case of prolapsus of the uterus, the parts should be washed with warm water and afterwards with the carbolic solution and returned to place, and the locks of wool tied across the bearing to prevent the expulsion of the womb again. In this case, also, a dose of raw linseed oil with a little laudanum in it will prevent or allay inflammation and serve to keep the ewe quiet. A drink of bran tea and sloppy feed for a day or two, and bran, oats and roots, with hay for roughage, will be found the safest and best feeding after lambing, the quantity being increased as the lambs grow older and require more nourishment.

At the age of two to three weeks, the lambs' tails should be docked about two inches from the rump. This may be done with a sharp knife, cutting upwards from the lower side of the tail at a joint, as the lamb stands, or the lamb may be held by an assistant with its back down, and the tail severed by a downward cut with the knife. Docking shears, such as are used for trimming sheep's hoofs, are sometimes used for *de-tailing* the lambs. If in any case bleeding continues too long, it may be stopped by tying a soft cord around the stump for a few hours. Castration of the ram lambs should be attended to at the same time, if they are not to be kept for breeding purposes. This operation should precede the docking, else the bleeding of the tail stump would make it disagreeable to the operator. Many United States shepherds practice clipping off the scrotum and its contents with the shears when the lambs are not more than two weeks old, and claim that it is perfectly safe. The general practice of English shepherds is to cut off the end of the scrotum and draw the testicles, one at a time, casings and all, with the teeth or with a pair of forceps, holding in either case one hand tightly upon the lamb's belly while drawing them out. There is very little risk attending the operation at this age, and it is very important in the case of grade lambs intended for the butcher that docking and castration be attended to without fail, as ram lambs are a nuisance in the fall, and have to be sold at a much lower price than wethers and ewe lambs on this account.

Calf Feeding.

"The Rearing of Heifer Calves for the Dairy" was the subject of an address given at a recent meeting of the Northumberland Dairy Farmers' Society by Principal Lawrence, of the County Council School at Newton Rigg. The report of the address published in an Old Country exchange makes interesting reading. We reproduce what is as applicable to calf feeding here as in England. As every one knows, upon the feeding of the calf its future usefulness depends in very large measure, whether it be as beef steer or dairy cow, and the cheapest way to feed the calf is to feed to produce the most valuable animal. It is not so much the cost of food required by the calf that the average farmer grudges as the time and attention required to have the calf make the most out of the food consumed.

Mr. Lawerence, in four years, had bred 86 calves, with the loss of but one. His experience, therefore, should be valuable. He said:—

"It was of the utmost importance to keep the different calves separate from each other until they were two months old, as many losses occurred among young calves through being allowed to run together and to suck each other. At Newton Rigg, a calf was taken to a pen away from the cow-house as soon it was born, got a good rub down with straw, and was well bedded and covered with the same material. In the course of half an hour or so the calf was fed with about a pint of its mother's first milk at blood heat. No medicine was given, the first milk containing all that is necessary both for feeding and as an aperient. Afterwards the following rules of feeding were observed:

First week.—Its own mother's milk warm three times a day, commencing with about a pint and a half at a time, and increasing to two quarts on the fourth day.

Second week.—Two quarts of warm new milk, not necessarily its own mother's, three times a day.

Third week.—Two quarts of warm milk, half new and half skim or separated, three times a day, with a half pint of linseed soup to each quart of skim milk.

Fourth week.—Same as third, with a handful of sweet meadow hay to nibble at.

Fifth week.—Two and a half quarts of warm skim milk three times a day, a half-pint of linseed soup to each quart, and a little sweet meadow hay after morning and evening meals; to be continued, with gradually increasing quantities of hay, till the end of the eighth week.

Ninth week.—Omit the linseed soup, and after the midday milk give a single handful of broken linseed cake and a little pulped swedes; grass instead of swedes in summer; hay as before.

Twelfth week.—Omit midday milk, and give three-quarters pound of mixed linseed cake and crushed oats, and half a gallon of pulped swedes (grass in summer) at midday, continuing morning and evening skim milk and hay as before.

If necessary, milk may be entirely dicontinued at five months old, and one pound a day of mixed linseed cake and crushed oats may be given to each calf, with increasing quantities of hay and roots, sliced or whole; but if skim milk be plentiful, it cannot be put to better use than giving the calves one or two drinks of it each day up to the age of eight or nine months.

To prepare linseed soup, put two pints of linseed to soak over night in four gallons of water, boil and stir the next day for half an hour, and five minutes before the boiling is finished add half a pound of flour (previously mixed with enough water to prevent it being lumpy) to counteract the laxative tendency of the linseed.

Side by side with linseed soup, cod-liver oil has been tried as a substitute for the removed cream, and it has answered admirably—quite as well as the boiled linseed. Where the cow's first milk is not available for newly-born calves, ordinary new milk may be made to closely resemble it by adding the white of an egg and a teaspoonful of castor oil previously whipped in a little warm water to about two quarts of the milk.

Reply to Mr. J. Campbell re Fat Stock Show Doings.

To the Editor FARMER'S ADVOCATE:

Noticing, in your issue of Feb. 1st., a letter entitled "More Strange Doings at the Fat Stock Show," in which the writer challenges contradiction, it is upon those grounds I wish to lay before the public a few facts which may be of interest.

In statement No. 2, Mr. Campbell says that it was at Mr. R. Gibson's special request that Mr. Hanmer was appointed judge, etc. I wish to say that in my presence father informed Mr. Campbell that Mr. Hanmer had been appointed on grades, and he raised no objection whatever.

In No. 3 he says Sec. 4 was called out of order, being called before Sec. 3, "which was one move in the game." I admit that. It was at Mr. Campbell's and my request of the *judges' director* to have them so called, but Mr. Campbell forgot to tell you that before, and, as he expected to have the winning lamb, you can understand why he wanted the classes so called. So you see, there were *two* moving in he game.

4th. Mr. Campbell says J. T. Gibson was 1st and R. Gibson nowhere. Now, Mr. Campbell knew differently, as the lamb we showed and won with was shown at Chicago, and stood next his in pen of 5 there, and I have letters in my possession which prove the lamb was ours since Nov. 2nd last, and is still ours, and if he has luck will appear next year as a short-wool grade, not as a short-wool in the fall and a long-wool in the winter.

5th. Mr. Campbell says: In judging pens of 3 wether lambs, which should have been done previously, Mr. Hanmer was so determined to have Mr. Gibson's pen win that a referee had to make the award. Was Mr. Hanmer alone in this? Did not another judge think Gibson's pen entitled to win? If not, why call in a referee? I might say further that it was the ringside opinion our pen would win, and also of one of America's exporters, Mr. W. H. Beattie (a man whom Mr. Campbell admits to be among the leading judges in America). So you can probably see why Mr. Hanmer stood out for our pen. In justice to my father, I will say that he knew nothing of what I was showing, nor what was entered for Guelph. So any attack to be made, I am the person to whom it should be directed.

I agree with Mr. Campbell that it is high time fair play should prevail. Regarding pet judges, I never knew there were such things, but probably Mr. Campbell knows some, and we have yet to write to the appointed judges for prices on their sheep. I know some that have done so, but will mention no names.

H. NOEL GIBSON.

Middlesex Co., Ont.

An Error in the Prize List.

To the Editor FARMER'S ADVOCATE:

In your issue of Feb. 1st, I notice in Mr. John Campbell's letter he makes the statement that I won in class 28, sec. 4, grade wether under one year, at the late Fat Stock Show at Guelph. If Mr. Campbell is right, I am out the $8. A breeder of long-wool sheep had a very slim chance of winning in that class with four short-wool judges and one long-wool judge, as Mr. Campbell puts it. It was R. Gibson first, and J. T. Gibson nowhere. I was not in it. Through some mistake you have me down for first in this class. Had you not better make the correction? Mr. Westervelt can say which got the money.

J. T. GIBSON.

Denfield, Feb. 14th.

[The prize list published in the FARMER'S ADVOCATE was the official list, supplied by the secretary. —ED.]

Cost of Feeding Light vs. Heavy Milkers.

At a milking trial held in connection with one of the recent summer shows in England the cow which was awarded the first prize produced over 6 gallons of milk in the day, and her milk was so rich in quality that it produced over 4 pounds of butter. At the same show there were on exhibition other cows of the same breed and practically the same size and weight which produced only 2 to 3 gallons of milk and barely 1 pound of butter. It would be a mistake to suppose that the feeding of one of the last named would cost as much as the six-gallon cow, because, as a rule, the better milker a cow is the more food will she consume. It is only natural that a cow yielding 6 gallons of milk should require a much more liberal food ration than one producing less than half that quantity. The difference in the cost of feeding the cows in question would not, however, be anything like so marked as their relative milk yields would suggest. In practice it is found that cows producing only 1½ gallons to 2 gallons—that is, 6 to 8 quarts—per day cost as much to keep as those yielding double that quantity. It is only when calculations of this kind are gone into that the difference between good and bad milkers can be properly estimated. At least occasional tests should be made of the milk which all the cows in a herd are producing, and a similar test should be made of the food which they are consuming, and if it is found, as it is to be feared will be only too frequently the case, that the animals are not giving a sufficient return for the cost of the food which they are disposing of, they should be got rid of at the first opportunity, and their places filled by others capable of giving a better return for the food.—*Farmer's Gazette.*