

thus sown. or May, or Red clover will be able tion of its experiment on for fall
 per on un- C. E., St. on getting The grade me reliable e level was ur Helping It must be a drain w, and thu at that the id bottom. t the drain all than is may clear r. In clay eep silt out present, a applied imer has en- d look well detail, and t first-class money his ill continue he has any
 l by T. G. finer tilth, referred to A wet spot Mr. Raynor sod, for the s obtained, overing the
 ed in the which have on turnips, during late ing enemy, probability n, kerosene The Plum small pea, falo Carpet house pest n the larval or quarters each Borer, among the resent day. weed and vorst, while re gaining ince. The new weeds nd a keen necessary. e" was the Creek. Th as about 1 from 12 t ready loca at
 of Madiso the value system dly revie wes are p They a good con up in go ke the ri big, stro order. T a pound hen rape ssary. I night ay and eal for uthy, if w ts each d , when b and prov s they v good gra from the heir sha n togeth ir moth according its share
 Wiscon: fatteni they wou dy for ot wa
 ter

period commenced both lots were given grain in liberal quantities. When all the lambs were fat those fed grain from the beginning gave a profit per head of 57 cents over the other lot, and they were ready for the butcher seven weeks earlier, which saved the work of feeding and risk during that time. The quantity of grain fed was limited only by the appetite of the lambs. The most profit was realized from feeding crushed corn, which yielded \$1.04 per head; wheat fed gave 69 cents profit per head; wheat screenings gave 55 cents profit; a mixture of corn, peas and oats gave 80 cents per head of a margin; oats alone or peas alone gave no return of profit.

The Professor places a high value on ensilage for sheep feeding, not only for the constituents of the food, but for the health-giving effect of its succulence. Ensilage and roots at \$2 per ton, the former is most profitable to feed in Wisconsin. The experimental sheep were all Shropshire grades. It is the Professor's opinion that the more open fleeced ones give most return for food consumed.

Economical Feeding at the O. A. C.—During the discussion of this (Prof. Craig's) address, Mr. Rennie, Farm Superintendent at the Ontario Agricultural College, gave an interesting review of his methods of feeding the College sheep. Prior to about a year ago, for a long time, the sheep on the "Farm" always appeared miserable and unhealthy. The conclusion generally arrived at was that the Experimental Farm was not a sheep farm, and, indeed, many people had come to the conclusion that there was some lingering disease continually in the flock and about the farm and buildings, but it is gratifying to know that the Guelph "Farm" is a good sheep farm and also as free from disease as any other. Until Mr. Rennie took charge the sheep, old and young, received liberal grain feeding to keep them in any sort of presentable condition, which, however, it failed to do. Mr. Rennie resorted to a plain diet, and the flock, during our visit to the "Union," never before looked as well. They are healthy, vigorous, in good order, and have the same thrifty appearance as any other well-kept flock of sheep.

Mr. Rennie believes in succulent diet, and to that end he had a field of rape cut and thrown in large windrows the last thing before the ground froze up. This rape is yet being hauled and fed to the ewes in their yards during the afternoon. The morning and evening feed consists of corn silage, pea chaff and pulped roots mixed together the previous day. At noon they get pea straw. They get no other grain except the corn of the ensilage.

By the way, we may mention just here that this mixture of ensilage, chaff and pulped roots is fed alike to horses and cattle, with the addition of a little bran in a few special cases, and these are all looking hearty and in good order. Cows that could not be got to breed for years previous to this plainer feeding are now producing calves without any trouble. The horses were fed last winter during the idle season on eight cents per day, and Mr. Rennie thinks he is going to put them through this winter on about seven cents daily, and keep them in fine, thrifty condition. The hogs, too, are being wintered very cheaply; about two cents per day is the cost of the brood sows' ration, up till within a few weeks of farrowing, when some grain will be used. The food used is mangels, and they also get the swill from the College kitchen, which is not taken into account. This sort of feeding, if it turns out as well as it promises, should remove the objection so often raised against farming at the College, that no private farmer can carry on his work in such fashion as is done at Guelph. This has frequently been hurled at students and ex-students by persons who have never visited the institution, but have heard such and such regarding their methods.

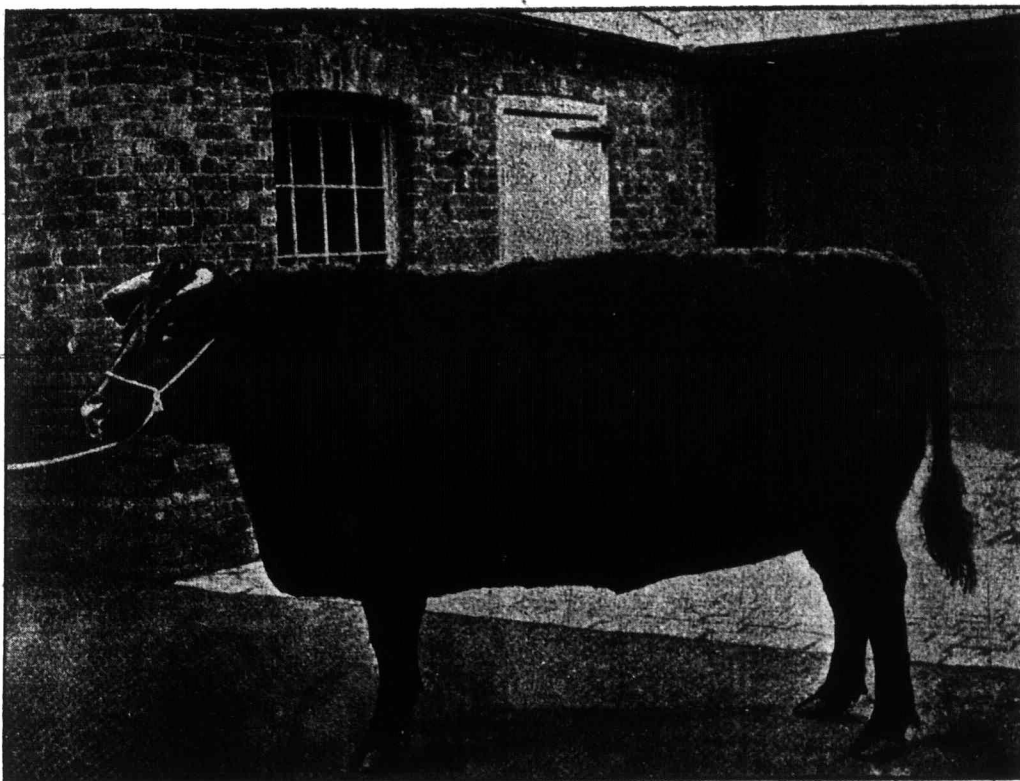
Beef Rings.—Mr. W. S. Fraser, Bradford, gave an address on the subject of fresh meat for the farmer during the summer months. The scheme is similar to many that are being carried out in different parts of the country. Mr. Fraser's method is to form, not later than February, a syndicate or "ring" of sixteen or twenty farmers, each one of whom agrees to put in an animal to dress about 400 lbs. of beef some time during the summer months. A butcher, who may be one of the number, agrees to slaughter, dress, and cut up the animals at \$2 per head. Lots are cast to decide each man's turn to supply his animal so that his beast may be ready when wanted. A beast is therefore killed and eaten every week. The method of distribution is to have a hook for each member in the butcher shop, and upon it hung, by the butcher, a roast, boiling piece and steak, making up his share of twenty or twenty-five pounds according to agreement. A strict rotation is followed throughout the season so that no member gets the same parts twice, and each family will, during the summer, have eaten a

whole beast. The head, hide, etc., belong to the member supplying the animal. When a beast dresses more than 400 lbs., or the allotted weight, the contributor gets a fixed price per pound for the extra weight. When it falls below he has to make it up. The animals are killed in the morning of the same day each week, so that the members will always know when to go for their meat. This method cannot but have a good effect upon the health and pockets of the members who have been in the habit of using salt pork the year 'round.

"Rations for dairy cows," by Prof. G. E. Day, B. S. A.; "Profits in poultry raising," by H. J. Page, St. Mary's, followed by discussion opened by W. R. Graham, B. S. A., Bayside, Ont.; "Tests with five-banded Italian bees," by R. F. Holtermann, Brantford; "Leading varieties of small fruits," by Prof. Hutt, B. S. A.; and the "Food value of milk and its derivatives," by Miss Bessie Livingston, of Ottawa Cooking School, were papers and addresses carefully given and much appreciated by the large audiences.

Prof. A. E. Shuttleworth took up the subject, "Quality and quantity of cheese from the percentage of fat in whole milk," and by discussing it clearly and explicitly, brought out the same lessons as are shown in Prof. Dean's article contained in our Dec. 16th '95 issue. One of the finest addresses of the "Union" was given by Prof. C. C. James, Deputy Minister of Agriculture, on the "Lives, works and influence of several agricultural scientists who departed this life during the year 1895," among which we may mention Amos Cruickshank, Profs. Pasteur, Riley, Langstroth, and others. President Mills' address was greatly appreciated.

ELECTION OF OFFICERS.
 President—Elmer Lick, Oshawa.



A WINNER FROM HER MAJESTY'S SHORTHORN HERD.

Vice-President—D. Z. Gibson, Willow Grove.
 Directors—President Mills; C. A. Zavitz; S. N. Monteith, Stratford; R. F. Holtermann, Brantford; T. G. Raynor, Rose Hill.
 Auditors—Messrs. Hodgetts and Elliott.
 Committee on Agriculture—President Mills, C. A. Zavitz, Prof. Shuttleworth, P. O. Vanatter, and R. Harcourt.
 Committee on Horticulture—Prof. Hutt, Messrs. Lick and Monteith.
 Committee on Apiculture—R. F. Holtermann; R. Husband, Cairngorm; and E. Emigh, Holbrook.
 Committee on Dairying—Prof. Dean; H. L. Beckett, Hamilton; S. P. Brown, Coldstream.
 Committee on Economic Botany and Entomology—Profs. Panton and Harrison, and M. W. Doherty, O. A. C., Guelph.

STOCK.

The Queen's Shorthorn, Frederica.

The subject of our extra illustration is the noted Shorthorn two-year-old heifer, Frederica, bred and exhibited by Her Majesty the Queen, the Prince Consort's Shaw Farm, Windsor. She is a beautiful red, sired by Volunteer 63501, dam Fragrant 9th, by Mr. Duthie's Lord Violet. Frederica was first winner in her class at the Royal (Darlington), 1895, and was reserve number for the championship there as best female. Her successes are still going on, as she was a popular winner at the recent Birmingham and London Fat Stock Shows, at each of which she carried off the very highest honors. It goes without saying that she is an almost typical Shorthorn. Besides her wonderful symmetry, she possesses great weight for her age. At 1,047 days old she tipped the beam at 1,802 lbs. The roans and whites do not always win.

The Portfolio of Agriculture.

A dispatch from Ottawa announces that Hon. W. H. Montague (M. D.), M. P., Haldimand, Ont., has been advanced from the position of Secretary of State to be Minister of Agriculture for the Dominion.

An Appreciative Letter.

SIR,—I take much pleasure in forwarding you a few (six) new names as subscribers to ADVOCATE, and renewal (P.O. order for \$7.00 enclosed). I am alone, with a large stock to attend to, so cannot devote much time to it, so have only canvassed my immediate neighborhood, and, in doing so, am surprised at the indifference of many to their own profession, and how little they read or know of what is going on in the world around them. The article in your last number, from the pen of Prof. Mills, "A Word to Farmers' Sons," is a grand address to young men, and should be widely read and studied by farmers' sons everywhere. Could you not publish it again for the benefit of new subscribers?

West Middlesex, Ont.

S. A. OTTON.

Our Scottish Letter.

The subject of moving interest at the present time is live stock. We are in the midst of the great Christmas shows and sales, and new developments having taken place in several departments, the attention of the public has been proportionately quickened. Fat stock shows have been held at Birmingham, Inverness, London, Leeds, and York. At all of these Scottish-bred cattle and sheep have been much in evidence, and a very large share of the prize money has fallen to them. Birmingham and London are the great rendezvous, and it is at these places that the Northern breeds come into sharpest conflict with the best produced in the South. The results have this season been very much a case of Scotland first, and the rest nowhere. Her Majesty the Queen, with a Scottish-bred Shorthorn heifer (Frederica), cleared the decks at both places, winning the very highest honors. This animal is red, and in general outlines belongs to the Cruickshank type. She had a hard fight for the supreme honors at both shows, an umpire having on each occasion to be called in. In her own breed section her chief opponent was another Scottish

Shorthorn, Marchioness XVI., bred and owned by Mr. C. M. Cameron, Balnakeyle, Rosshire. This is a very fine specimen of the breed, and plenty of judges preferred her before Frederica. She is roan in color, and truer to breed character, but the red heifer was better finished for a fat stock show. The reserve champion animals, both at Birmingham and London, were three parts bred Shorthorns, with one part Aberdeen-Angus blood, and both were bred by Mr. John Ross, Meikle Tarrel, Fearn, also in Rosshire. The sire was Ringleader, a Collingie bull. And a large proportion of the prize-winners alike at the two great English shows and the Inverness show were got by this bull, out of Mr. Ross's cross-bred cows. The reserve champion at the capital of the Midlands was Lady Lizzie, a heifer owned by Mr. C. J. Bruce, Bogmurchals Lodge, Portsoy, and of all the Meikle Tarrel cattle shown this season, the only one with horns. In every other case the one cross of the Polled bull had knocked off the horns of the Shorthorn. At London, Lady Lizzie had to make way for her nearly full sister, White Socks, a heifer identical in breeding, and owned by the Earl of Rosebery, K.G., who was a most successful exhibitor in all the sections. White Socks is a remarkably good cross-bred heifer, and an umpire had to decide whether she or Frederica was to wear the supreme honors of the Smithfield Club. The award went in favor of Frederica, which was bred, as well as exhibited, by the Queen, but many, including several of the leading butchers, preferred White Socks. She won the championship in the cross-bred section, and her all but full brother, Scottish Prince, also bred at Meikle Tarrel, and owned by the Earl of Rosebery,