

decided advantage over the north of Scotland both in climate and pasturage. The proposal is worthy of consideration. As a return cargo, he suggests that the marbles of Connemara would answer very well, in addition to Caragen or Irish moss and other things mentioned in the letter.

A Loss that Might be Largely Prevented. The foreign live stock trade, the traffic in store and fat cattle to this country, as distinct from the necessarily careful transit of well-bred, high priced animals for breeding purposes from the United Kingdom, continues to claim a heavy total of victims. During 1888, in the course of a voyage from Canada and United States, 2,066 animals were thrown overboard, 164 were landed dead, and 1,147 were so much injured or exhausted that they were killed immediately after landing, making a total of 2,947 that were either lost on the passage or so much injured as to necessitate slaughter at the place of landing. The Society for the Prevention of Cruelty to Animals does not seem to consider that this is any call for its interference. *London Live Stock Journal*.

Testimony in Favor of the Silo. Four years' experience in feeding corn ensilage to a herd of 100 or 120 head of cattle and horses (mostly cows) has impressed me with the fact that for wintering stock of this kind the cost is reduced fifty per cent. Corn silage fed to milks with wheat bran, crushed oats or oil cake, or a mixture of all these, makes higher and better flavored butter (nearer a June flavor) than can be made from any dry feed, and I will add, more of it. Colts, work horses, and brood mares do well on it. By doing well I mean that colts grow and keep in fine condition, work horses do good work and keep in fine, healthy condition; and brood mares bring strong, healthy colts and have plenty of milk for them. Pigs do well, but need maddings or some nitrogenous food to make a good growth. *A. Austin, in O. Todd Farmer*.

The Barberry Not Accountable for All Wheat Rust. At the recent meeting of the Society for the Promotion of Agricultural Science, held in Toronto, Prof. J. C. Arthur expressed himself as being of the opinion that there was more than one species of fungus that was involved in producing what is commonly known as wheat rust, and that winter wheat would carry these newly discovered species of red rust (*Puccinia rubigo-vera*) over the winter without the agency of the barberry. He found that all the rust that was collected over the State of Indiana was of this kind, while it was formerly supposed to be due to the attacks of the other variety (*Puccinia graminis*) that requires to have the barberry as a host. This leads him to think that most of the rust on this continent is of this new variety, and hence the barberry is not accountable for all our wheat rust.

A Change for the Better. The Steele Bros. Co., Ltd., finding that their location on Front St. in this city was not suitable for the retail trade, opened extensive premises on King St. opposite the market, early in the year. They retain the old warehouse for their private department and offices. Mr. W. H. Maron, formerly of the firm, now one of the company, has charge of the new store, which is very handsome and commodious, the fine large plate glass windows showing the goods to advantage. We had pointed out to us several new samples of fall wheat including the now famous "Golden Cross." They have a very fine assortment of bulles. Their handsome fall catalogue of wheats, bulles and winter flowering plants is now ready. It contains information and instruction that is useful for the busy outdoor worker. When in the city at the Exhibition do not fail to call.

Manitoba Exhibit at Our Fall Fairs. The exhibit of Manitoba products which is being collected by the Government of that Province will, it is expected, arrive in Toronto the first week in September. The applications received this year for the Manitoba exhibit to be sent to fall fairs in Ontario are far in excess of those of previous years, and owing to the importunities of exhibition secretaries, and the fact that many fairs are held on the same date, Mr. McMillan, the agent here, has found it difficult to decide the various claims. In all probability the exhibit will be sent to fairs at the following places: Toronto, London, Ottawa, St. Catharines, Welland, Goderich, St. Thomas, Cayuga, Smithville, Acton, Fergus, Essex Centre, Osherville, Ridgeway, Renfrew, Belleville, Campbellford, Port Perry, Durham, Stayner, Beeton, Orangeville, Elmville, and also to some points in Glenora, Frontenac and Addington, which are not yet definitely decided upon.

Important Meeting of Shire Breeders and Importers. The Shire Horse Association, having been formed a short while ago, holds its first regular meeting at London, Tuesday, Sept. 10th. It is hardly necessary for us to urge it as the duty of all interested in the Shire horse industry to attend. We need only say that matters of great importance will be brought up for discussion. Being but a new association, it is in urgent need of the hearty support and full sympathy of those having an

interest in this breed. As to the benefits that shall accrue from the formation of a strong association with a long membership roll, we need not call attention to, for all must feel and know that such would greatly facilitate the progress of the breed in this country and greatly aid its advancement also, as a whole. The effectiveness of the work of this association will be largely governed by the number of its members and the attendance at its annual meeting, so everyone at all interested should not fail to attend and aid in every way the association in the good work it has before it.

What our Neighbors are Doing. Our Experimental stations now employ over 170 experts in agricultural science and practice, and are supported by a national appropriation of \$600,000, to which the States add about \$125,000. \$725,000 a year may seem like a large sum to expend annually for agricultural experiments, but it is less than 10 cents for each of the 7,500,000 farm workers of the country, less than 1/2 cent for each of the 150,000,000 of our population directly dependent upon agriculture for their support, and less than 1/4 cent for each of the 600,000,000 of our people who consume the products of our farms. The farming lands, farm implements, and live stock of the country are estimated to be worth \$12,000,000,000. The experiment stations cost us, therefore, about \$6.25 a year for every million dollars invested in agriculture. Or, reckoning the annual value of the products of our farms at \$2,500,000,000, we are now spending 1/4 cent for every thousand dollars worth of products in an attempt to increase the value of these products in future years. *Farmers Bulletin, No. 1.*

Prize on Southdowns. The American Southdown Association offers as a special prize at the American Fat Stock Show, Chicago, November 12-21, a solid silver cup, costing \$50, for the best Southdown wether, on the following conditions: 1. All competing animals to be one and under two years old; to be pure bred, the progeny of recorded sires and dams, and to have been bred by and at the time of exhibition to be the property of the exhibitor. 2. The exhibitor to furnish at the time of entry a written statement, verified by affidavit, giving the pedigree, age, weight, date, and manner of feeding, and other important facts connected with the management of each animal during the year. 3. Competition shall be open to all, but no award shall be made except there be two or more competitors. 4. The party securing the prize may hold it in trust until the opening day of the first succeeding Fat Stock Show, when it shall be placed in the hands of the American Southdown Association, to be again competed for. When taken the second time by the same exhibitor the prize shall then become his actual property.

Nursery Stock Salesmen Wanted. Being over thirty years in the nursery business, the Chase Brothers Company have earned for themselves a reputation that stands to their credit for uprightness in all their dealings, the outcome of an earnest desire to do well by those who patronize them. They have, under careful and experienced propagators and cultivators employed by them, about 200 acres of land under cultivation, and this is all needed to meet the demands of their many customers. Their head office is at Rochester, N.Y., with large branch offices at Chicago, Ill., and another at Colborne, Ont. They are always on the look-out for good, reliable salesmen to canvass for their nursery stock. The status of this firm, its magnitude, and the quality of their output should be inducements for those fitted for this work to engage with them. As an indication of the business done by this firm, we need only cite the fact that for the Springs of 1884, 1885, and 1886, they planted a total of one million and sixty-seven thousand of apples, pears, plums, etc., etc., including all the smaller fruits. See their advertisement for salesmen.

Inflammation of the Throat. The following was received too late for classification. *Editor Canadian Live Stock and Farm Journal.* Sir, Will you be kind enough to let me know what is the matter with my cows and what I can do to cure them? They have slight coughing or choking spells, and run out their tongues and often hew when these attacks come on. They have a difficulty in breathing, and the attacks seem to be worse after drinking. One we were milking failed so much in flesh that we stopped milking her. They have the same pasture that they had last year, and have access to a small piece of timbered land and have good well water to drink. *Subscriber, Russell, Ont. Answer by F. C. Grenside, F.R.S., Guelph, Ont.* Inflammation of the throat appears to be the trouble from which the cows are suffering. It is very likely the result of damp weather and cold nights, especially if the pasture is low lying. Give half an ounce of chlorate of potash three times a day in chopped oats or lean mash. Put mustard, prepared as for table use, on the skin surrounding the throat. Avoid damp and cold by housing.

The Milking Trials at Windsor. The cows were classed into three sections, according to live weight, as follows: For those over 1,200 pounds; second, for those weighing from 900 to

1,200 pounds, and third, for those under 900 pounds. Prizes were offered (1) for the cow of any breed or cross giving the greatest quantity of milk, containing not less than 12 per cent. solids and 3 per cent. butter-fat, and (2) for the cow giving the greatest weight of butter-fat, the yield of milk to be not less than 25 pounds per day. The first prize for quantity of milk in the heavy class was won by a Shorthorn cross, which gave 61 lbs. 4 ozs. in two milkings. In the middle-weights, by another cross-bred cow, giving 51 lbs. 4 ozs. of milk; and in the light-weights, by a Jersey, which gave 47 lbs. 12 ozs. of milk. In the class for amount of butter-fat, the winner of the first prize for heavy cattle was a Guernsey, which gave in two milkings 46 lbs. 12 ozs. of milk, yielding 2 25 lbs. of butter-fat. A Guernsey cow was also first in the middle weight, with 39 lbs. of milk, yielding 1 78 lbs. of butter-fat, and in the lighter cattle a Jersey won the first prize, giving 48 lbs. 8 ozs. of milk, yielding 2 24 lbs. of butter-fat. *The Dairy.*

Meeting of the Dominion Sheep Breeders' Association. In the August issue of the JOURNAL we announced in part the programme of this meeting. The programme is now completed. The meeting will be held in the City Hall, London, on Thursday evening, Sept. 12th. The following persons will read papers on the prospective subjects named: The Proper Classification of Sheep at Fairs, by J. C. Snell, Edmonton; The Value of the Selo and Soling Crops for Sheep, by John S. Pearce, London; The Proper Method of Getting up Fleeces for Market, by Ald. John Hallam, Toronto; What a Canadian Sheep-raiser can Learn in England, by John Campbell, Jr., Woodville; Protecting the Flocks from the Dogs, by John Dryden, M.P.P., Brooklyn, and David Nichol, Cataragui; The Sheep for the Farmer, by Mungo McNab, Cowal; Mr. Mortimer Levering, of La Fayette, Indiana, Secretary of the American Shropshire Association, will be present and will address the meeting on the advisability of joint American and Canadian records for sheep. The sweepstakes silver plate, given by John S. Pearce, of London, to be competed for at the Provincial Exhibition, will be presented to the winner at the close of the meeting. Hon. Chas. Drury, Minister of Agriculture, is expected to be present and will deliver an address.

Butter-Making Without Churning. Australian papers give a full description of a new process of butter-making without churning, which has been on exhibition for about two months in Australia. The butter globules are separated by passing air through the cream, and at least two advantages are claimed for the process. In the first place, there is a great saving of labor, and secondly, it is said the butter is purified by the circulation of air through cream tainted by strong fodder or by being kept too long. In a recent trial three strong glass vessels were provided for the cream, large enough to make about 80 pounds of butter at one time. To obtain the air-power water is run into an empty tank, forcing the air therein through a pipe into a second tank filled with water, with which some unknown material is mixed to purify the air passing through it. After being forced through this intermediate tank the air enters each of the glass vessels near the bottom and rises through the cream, escaping, presumably, by a valve at the top. In from twenty to sixty minutes, according to the condition of the cream, the state of the weather, and other circumstances, the butter rises to the top of the vessels, and the butter-milk is drawn off from below. No details are given as to the proportion of butter to milk, or as to the percentage of butter-fat left in the butter-milk. These points must be investigated before the process can be regarded as of any value. *The Farmer.*

Live Stock Importations.—Since May 21st, 1889, the following list of stock have arrived at Quebec cattle quarantine: May 27, per steamer Nannaton, six bulks, ninety-one heifers (Aberdeen-Angus), for Union Ranch Company, Okotoks, N.W.T.; May 29, per steamer Ontario, one boar, six sows (Yorkshire), for Wm. Davies & Son, Toronto, Can.; June 28, per steamer Asyrrian, one bull, two heifers (Norman breed), for Hon. L. Beaubien, Montreal, Can.; July 2, per steamer Sarnia, one Hereford bull, for Davies & Co., Lachine, Que.; July 7, per steamer Nannaton, one bull, nineteen heifers (West Highlanders), for Mr. G. D. McKay, Qu'Appelle, N.W.T.; July 8, per steamer Ontario, two hogs, six sows (Yorkshire), for Green Bros., Innerkip, Ont.; July 17, per steamer Lake Winnipeg, one ram, thirty-two ewes (Shropshire), for James P. Poin, Hespeller, Ont.; July 18, per steamer Toronto, one Shorthorn bull, one boar, two sows (Berkshire), two rams, twenty ewes (Shropshire), for Dr. Bernardo, N.W.T.; four rams, seven ewes (Hampshire), one ram, five ewes (Dorset), for John Pickering, Pontiac, Mich.; July 23, per steamer Montreal, 105 Shropshires for John Dryden, Brooklyn, Ont.; twenty-five Shropshires for Robert Miller, Pickering, Ont.; fifty-five Shropshires for John Campbell, Woodville, Ont.; fifteen Cotswolds, twenty-seven Berkshires for J. C. Snell, Edmonton, Ont.; thirty Cotswolds, fourteen Berkshires for James Main, Boyan, Ont.; eight Southdowns for John Jackson, Abington, Ont.